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DVR User Manual

For H.264 4/8/16/32-channel digital video recorder

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CAUTION

- **Please read this user manual carefully to ensure that you can use the device correctly and safely**
- **We do not warrant all the content is correct.**
- **The contents of this manual may be out-dated.**
- **This device should be operated only from the type of power source indicated on the marking label. The voltage of the power must be verified before using. If unused for a long time period shutdown and unplug the power cable.**
- **Don't install this device close to a heat sources (e.g. radiators, heat registers, stoves or other device).**
- **Do not install this device near water. Clean only with a dry cloth**
- **Do not block any ventilation openings and make sure the device is in a ventilated place.**
- **Do not unplug the DVR when the device is working. The correct method to shut down DVR is to stop the recording, and then press the "shut down" button from the main menu.**
- **This equipment is for indoor use only. Do not expose the machine in rain or moist environment. In case any solid or liquid get inside the machine's case, please cut off the power supply immediately, and get it checked by a qualified technician.**
- **Refer all servicing to qualified service personnel. No any parts repaired by yourself without technical aid or approval.**
- **This manual is suitable for the 4/8/16/32 channel digital video recorders N/NE/HD series. All examples and pictures used in the manual are from 4/8/16-channel DVR.**

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1 Introduction

1.1 DVR Introduction

These model DVRs (Digital Video Recorder) are designed specially for CCTV system. The device contains high performance video processing chips and an embedded Linux system, it utilizes advanced standard technologies, such as H.264 with low bit rate, Dual stream, SATA interface, VGA output mouse supported, IE browser supported with full remote control, mobile view (by phones) and more. All those ensure its superior and stable performance. Due to these distinctive characteristics, it is widely used in banks, telecommunication, transportation, factories, warehouse, irrigation and more.

This manual is for the following DVRs: The **SA-4100N, SA-8200N, SA-16400N**, **SA-16400NE, SA-4100HD(1U), SA-8200HD(1U)**, **SA-16400HD(2U)** and **SA-32800**.

1.2 Main Features

COMPRESSION FORMAT

- Standard H.264 compression with low bit rate and better image quality.
- SA-16400NE/SA-4100HD(1U)/SA-8200HD(1U)/SA-16400HD(2U)/SA-32800 supports mixed D1 and CIF resolutions.
- SA-32800 supports D1 on four channels: 1,9,17 and 25 (25 fps).

LIVE SURVEILLANCE

- Supports VGA output (and zoom X4 option).
- SA-4100HD(1U)/SA-8200HD(1U)/SA-16400HD(2U)/SA-32800 supports HDMI output.
- Supports channel security by hiding live display.
- Displays the local record state and basic information.
- Supports USB mouse for full control.

RECORD MEDIA

- SA-16400NE/SA-16400HD(2U)/SA-32800 supports multiple SATA hard drives to record for a longer time.

- Supports zoomX4 option during playback.

BACKUP

- Supports USB 2.0 devices for backup.
- SA-16400NE/SA-16400HD(2U)/SA-32800 Supports installation of a built-in SATA DVD writer for backup.
- Supports saving recorded files with AVI standard format for a remote computer through internet.
- SA-16400NE/SA-4100HD(1U)/SA-8200HD(1U)/SA-16400HD(2U)/SA-32800 supports import/export of definitions/settings.
- Supports E-mail Notification function with (or without) attached snapshot.

RECORD & PLAYBACK

- Record modes: Manual, Schedule, Motion detection and Sensor alarm recording.
- Supports recycle recording after HDD is full.
- Resolution, frame rate and picture quality are adjustable.
- 128MB for every video file packaging.
- 4 audio channels, 16 for the SA-16400HD(2U)/SA-32800 DVR.
- Record search mode: time search and event search.
- Supports playback of all cameras simultaneously.
- Supports deleting or protecting specified recorded files.
- Supports remote playback in Network Client through LAN or internet.

ALARM

- 1 channel alarm output (4 channels in SA-32800) and 4/8/16 channel alarm input available.
- Supports schedule for motion detection and sensor alarm.
- Supports pre-recording and post recording.
- Motion or alarm triggers recording/PTZ predefined control/e-mail notification/buzzer of predefined channels.
- Supports linked PTZ preset, auto cruise and track of the corresponding channel.

PTZ CONTROL

- Supports multiple PTZ protocols.
- Supports 128 PTZ presets and 8 auto cruise tracks.
- Supports remote PTZ control through internet.

SECURITY

- User management: log search, system setup, two way audio, file management, disk management, remote login, live view, manual record, playback, PTZ control and remote live view.
- Supports 1 administrator and 63 usernames and linked passwords w/wo associated Mac address.
- Supports event log recording and viewing, unlimited number of events.
- SA-16400NE/SA-4100HD(1U)/SA-8200HD(1U)/SA-16400HD(2U)/SA-32800 supports disconnecting online users.
- Supports two-way audio function.

NETWORK

- Supports TCP/IP, DHCP, PPPoE, DDNS protocols.
- Supports IE browser for remote view.
- Supports limiting the maximum number of online clients (5 users for 4/8 channel DVR and 10 users for 16/32 channel DVR).
- Supports dual stream. Network stream is adjustable independently to fit the network bandwidth and environment.
- Supports snap picture (SA-16400NE/SA-4100HD(1U)/SA-8200HD(1U)/SA-16400HD(2U)/SA-32800).
- Supports color adjustment in remote live
- Supports remote time search, event search, and channel playback with picture snap.
- Supports remote PTZ control with preset and auto cruise.
- Supports remote full menu setup, changing all the DVR parameters remotely.
- Supports mobile surveillance by smart phones; iPhone, Android, Symbian, WinCE and blackberry.
- Supports CMS; designated program for remote management of multiple devices
- For NE/HD series DVR supports IP block/allow list via the internet.

2 Hardware Installation

***Notice**: Check the unit and the accessories after getting the DVR.*
shut down the device and unplug the power line before any new connections to other devices. Don't hot plug in/out

2.1 Install Hard Drive &DVD Writer

2.1.1 Install Hard Drive SA-4100N/SA-8200N/SA-16400NE/SA-4100HD(1U)/SA-8200HD(1U)

***Notice**: 1. The 16-channel DVR supports two SATA hard drives (the 4/8-channel DVR supports one SATA hard drive). Please use the hard drive on the compatible devices list especially for security and safe field.*

2. Please calculate HDD capacity according to the recording setting. Please refer to "Appendix B Calculate Recording Capacity".

Step1: unplug the DVR from the power line, then unscrew and carefully open the top cover
Step2: Connect the HDD power and data cables. Place the HDD onto the bottom case as Fig2.1.
Step3: Screw the HDD as Fig2.2

Note: For ease of installment: connect the cables before fastening the HDD to the bottom plate.

Fig 2.1 HDD placement

Fig 2.2 Screw HDD

2.1.2 Install DVD Writer (SA-16400NE)

***Notice**: 1. The DVD writers must be on the compatible devices list. Please refer to "Appendix C Compatible Devices"*

2. This device is only for backup

Step1: unplug from the power line, then unscrew and carefully open the top cover

Step2: Connect the power and data cables, and then place the DVD writer on the bottom case as Fig2.3.

Step3: Screw the DVD writer as Fig2.4

Fig 2.3 DVD Writer placement

Fig 2.4 fasten the Writer

2.1.3 Install DVD Writer SA-4100HD(1U)/SA-8200HD(1U)

***Notice**: 1. The writers must be on the compatible devices list. Please refer to "Appendix C Compatible Devices"*

2. This device is only for backup

Step1: unplug the DVR from the power line, unscrew and Open the top cover

Step2: Connect the HDD power / data cables. Place the DVD writer onto the bottom case as below. Step3: Screw the DVD writer.

Fig 2.3 Connect HDD

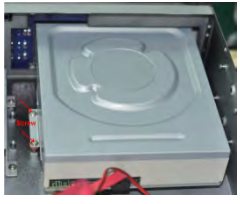


Fig 2.2 Connect the DVD Writer (Besides the HDD)

Step3: Screw the DVD writer.

2.1.4 Install Hard Drive (SA-16400HD(2U)/SA-32800)

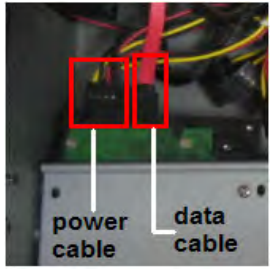
***Notice**: 1. This series support four SATA hard drives or three SATA hard drives plus one DVD writer. (User can also choose to*

install eight SATA hard drives or four SATA hard drives plus one DVD writer. Here take eight SATA hard drives installation for example). Use the hard drive on the compatible devices list. Please refer to "Appendix C Compatible devices".

2. Please calculate HDD capacity according to the recording setting. Please refer to "Appendix B Calculate Recording Capacity".

Step 1: Unscrew and open the case and then unscrew the screws in the both sides to take out of the upper iron bar as shown below:

Step 2: Put the HDD under the lower iron bar and let the screw holes of the HDD aim at the iron bars'. Then screw firmly and connect the power and data cables. The pictures are shown as follows:



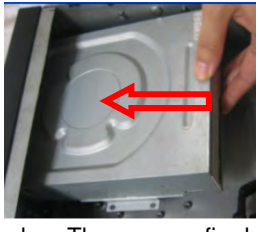
Step 3: Install other three HDD according to above-mentioned method. Then cover the upper iron bar and screw it firmly. Put the HDD under it and screw firmly as shown below:

Step 4: Install other three HDD under the upper iron bar as shown below:

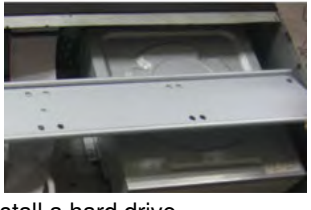
2.1.5 Install DVD Writer (SA-16400HD(2U)/SA-32800)

Step 1: Unscrew and open the case. *Then unscrew the screws on both sides to remove the upper bar as shown below:*

Step 2: Install the DVD holder that came with the device. Please let the screw holes of the DVD aim and the bolts. Try to place the holder farther away from the front and then screw firmly. Then, put the DVD with the holder into the case and let the screw holes of the case aim at the holder's. Next, tighten the bolts firmly.



Step 3: Connect the power and data cables and install the upper iron bar. Then, screw firmly with screws in the both sides.



Note: The DVD installation uses a space that could be used to install a hard drive.

2.2 Front Panel Descriptions:

2.2.1 Front Panel Descriptions (SA-16400NE):

Item	Type	Name	Description
1	Work state indicator	Power	Power indicator, when connection , the light is blue
		HDD	When HDD is writing and reading , the light is blue
		Net	When access to network , the light is blue
		Backup	When backup files and data, the light is blue
		Play	When playing video, the light is blue
		REC	When recording, the light is blue
2	Compound button	MENU/+	1. Enter menu in live 2. Increase the value in setup
		BACKUP/-	1. Decrease the value in setup 2. Enter backup mode in live
		RECORD/FOCUS	1. Record manually 2. FOCUS function enables at PTZ mode.
		REW/SPEED	1. Rewind key 2. SPEED function enables at PTZ mode
		SEARCH/ZOOM	1. Enter search mode 2.ZOOM function enables at PTZ mode.
		PLAY /IRIS	1. Enter play interface 2. IRIS function enables at PTZ mode
		FF/ P.T.Z.	1. Fast forward 2. Enter PTZ mode in live
		STOP/ESC	1. Quit play mode 2. Exit the current interface or status
3	Digital button	1-9 or 0/10+	Input number 1-9 or choose camera / Input number0, 10 and the above number together with other digital keys
4	Input button	Direction button	Change direction to select items
		Multi-screen	Change screen display mode like1/4/9/16 channel
		Enter button	Confirm selection
5	IR receiver	IR	For remote controller
6	USB	USB port	external USB devices for USB flash, USB HDD for backup, firmware update or connect to USB mouse
7	Extension	EXT_IR	To connect to external cable for IR receiver

2.2.2 Front Panel Descriptions (SA-4100N/SA-8200N/SA-16400N):

Item	Type	Name	Description
1	Work state indicator	Power	Power indicator, when connection , the light is blue
		HDD	When HDD is writing and reading , the light is blue
		Net	When access to network , the light is blue
		Backup	When backup files and data, the light is blue
		Play	When playing video, the light is blue
		REC	When recording, the light is blue
2	Compound button	MENU/+	1. Enter menu in live 2. Increase the value in setup
		BACKUP/-	1. Decrease the value in setup 2. Enter backup mode in live
		RECORD/FOCUS	1. Record manually 2. FOCUS function enables at PTZ mode.
		REW/SPEED	1. Rewind key 2. SPEED function enables at PTZ mode
		SEARCH/ZOOM	1. Enter search mode 2.ZOOM function enables at PTZ mode.
		PLAY /IRIS	1. Enter play interface 2. IRIS function enables at PTZ mode
		FF/ P.T.Z.	1. Fast forward 2. Enter PTZ mode in live
		STOP/ESC	1. Quit play mode 2. Exit the current interface or status
3	Input button	Direction button	Change direction to select items
		Multi-screen	Change screen display mode like1/4/9 channel
		Enter button	Confirm selection
4	IR receiver	IR	For remote controller
5	USB	USB port	external USB devices (USB flash, USB HDD for backup, update firmware, USB mouse)
6	External IR	EXT_IR	Extension for the IR receiver

2.2.3 Front Panel Descriptions SA-4100HD(1U)/SA-8200HD(1U)

Item	Type	Name	Description
1	Work state indicator	Power	Power indicator, when connection , the light is blue
		HDD	When HDD is writing and reading , the light is blue
		Net	When access to network , the light is blue
		Backup	When backup files and data, the light is blue
		Play	When playing video, the light is blue
		REC	When recording, the light is blue
2	Compound button	MENU/+	1. Enter menu in live 2. Increase the value in setup
		BACKUP/-	1. Decrease the value in setup 2. Enter backup mode in live
		RECORD/FOCUS	1. Record manually 2. FOCUS function enables at PTZ mode.
		REW/SPEED	1. Rewind key 2. SPEED function enables at PTZ mode
		SEARCH/ZOOM	1. Enter search mode 2.ZOOM function enables at PTZ mode.
		PLAY /IRIS	1. Enter play interface 2. IRIS function enables at PTZ mode
		FF/ P.T.Z.	1. Fast forward 2. Enter PTZ mode in live
		STOP/ESC	1. Quit play mode 2. Exit the current interface or status
3	Digital button	1-9 or 0/10+	Input number 1-9 or choose camera / Input number0, 10 and the above number together with other digital keys
4	Input button	Direction button	Change direction to select items
		Multi-screen	Change screen display mode like1/4/9/16 channel
		Enter button	Confirm selection
5	IR receiver	IR	For remote controller
6	USB	USB port	external USB devices for USB flash, USB HDD for backup, firmware update or connect to USB mouse
7	Extension	EXT_IR	To connect to external cable for IR receiver

2.2.4 Front Panel Description (SA-16400HD(2U)/SA-32800)

Item	Name	Function	
1	Power Button	Soft switch off to stop firmware running. Do it before power off.	
2	DVD button	Press this button, user can place the DVD to do backup.	
3	Keys 0-9	Input number 1-9 or choose camera	
4	(0/——)	1. represents decade number. 2. Indicates digital number 0	
5	AUDIO/+	1. Control voice 2. Increase the value in setup	
6	P.T.Z./ -	1. Enter PTZ mode in live 2. Decrease the value in setup	
7	Input button	Direction button	Change direction to select items
		Multi-screen	Change screen display mode like1/4/9/16 channel
		Enter button	Confirm selection
8	Work state indicator	REC	When recording, the light is blue
		HDD	When HDD is writing and reading , the light is blue
		Backup	When backup files and data, the light is blue
		Net	When access to network , the light is blue
		Play	When playing video, the light is blue
		Power	Power indicator, when connection , the light is blue

Item	Name	Function	
9	Function button	MENU	Enter menu in live
		INFO	Check data, same as: Main menu=>Information
		BACKUP	Enter backup mode in live
		SEARCH	Enter search mode
		REW	Rewind
		FF	Fast forward
		REC	Record manually
		PLAY	Play/Pause
		STOP	Stop/Esc
10	Jog dial	Control rewind/fast forward/frame when playing the image.	
11	USB port	external USB devices (USB flash, USB HDD for backup, update firmware, USB mouse)	

2.3 Rear Panel Descriptions

2.3.1 Rear Panel Description (SA-4100N)

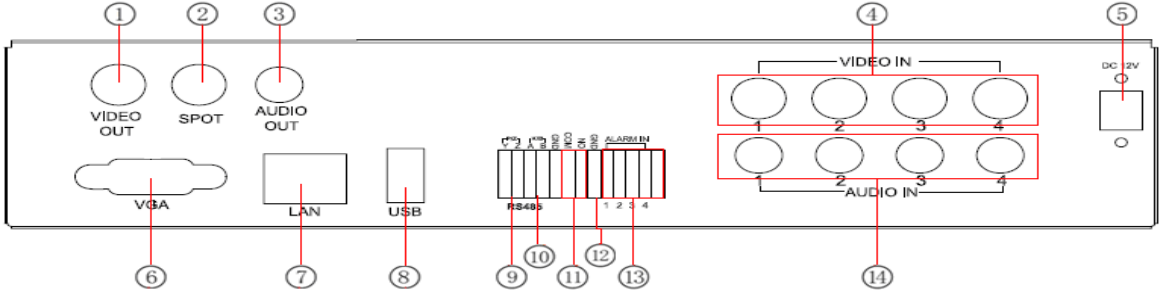


Fig 2.3 Rear Panel Descriptions (SA-4100N):

Item	Name	Description
1	Video out	Connect to monitor
2	Spot out	Connect to monitor as an AUX output channel by channel. Only video display, no menu show
3	Audio out	Audio output, connect to the sound box
4	Video in	Video input channels from 1-4
5	DC12V	POWER INPUT
6	VGA port	VGA output, connect to monitor
7	LAN	Network port
8	USB port	Connect USB mouse or connect external USB devices
9	P/Z	Connect to speed dome (RS485 PTZ cameras and keyboard)
10	K/B	Connect to keyboard
11	ALARM OUT	1-ch relay output. Connect to external alarm
12	+ 5V and GND	+5 V and Grounding
13	ALARM IN	Connect to external sensor1-4
14	Audio in	4 CH Audio input

2.3.2 Rear Panel Description (SA-8200N)

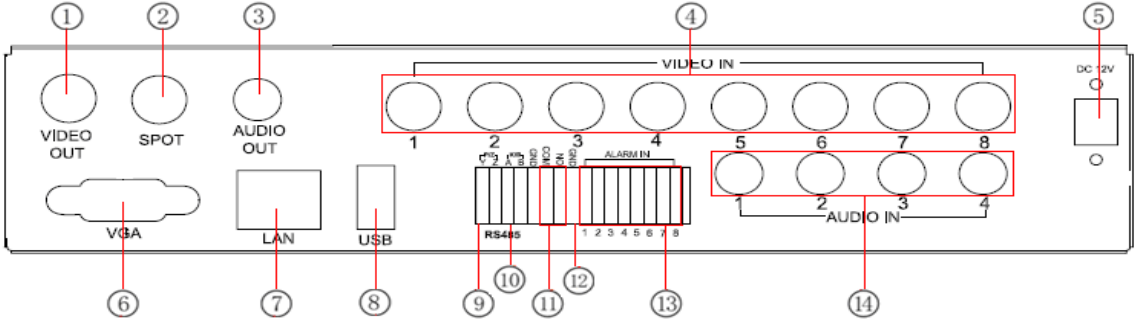


Fig 2.4 Rear Panel Descriptions (SA-8200N):

Item	Name	Description
1	Video out	Connect to monitor
2	Spot out	Connect to monitor as an AUX output channel by channel. Only video display, no menu show
3	Audio out	Audio output, connect to the sound box
4	Video in	Video input channels from 1-8
5	DC12V	POWER INPUT
6	VGA port	VGA output, connect to monitor
7	LAN	Network port
8	USB port	Connect USB mouse or connect external USB devices
9	P/Z	Connect to speed dome (RS485 PTZ cameras and keyboard)
10	K/B	Connect to keyboard
11	ALARM OUT	1-ch relay output. Connect to external alarm
12	+ 5V and GND	+5 V and Grounding
13	ALARM IN	Connect to external sensor1-4
14	Audio in	4 CH Audio input

2.3.3 Rear Panel Description (SA-16400N)

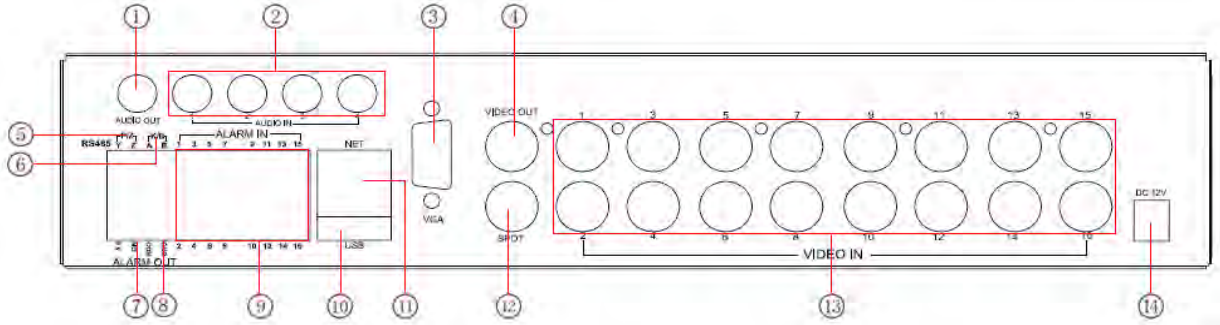


Fig 2.3 Rear Panel for 16-ch

Item	Name	Description
1	Audio out	Audio output, connect to the sound box
2	Audio in	4 CH Audio input
3	VGA port	VGA output, connect to monitor
4	Video out	Connect to monitor
5	P/Z	Connect to speed dome
6	K/B	Connect to keyboard
7	ALARM OUT	1-ch relay output. Connect to external alarm
8	+ 5V and GND	+5 V and Grounding
9	ALARM IN	Connect to external sensor1-16
10	USB port	To connect external USB devices like USB flash, USB HDD for backup or update firmware; or connect to USB mouse
11	NET	Network port
12	Spot out	Connect to monitor as an AUX output channel by channel. Only video display, no menu show
13	Video in	Video input channels from 1-16
14	POWER INPUT	DC12V

2.3.4 Rear Panel Description (SA-16400NE)

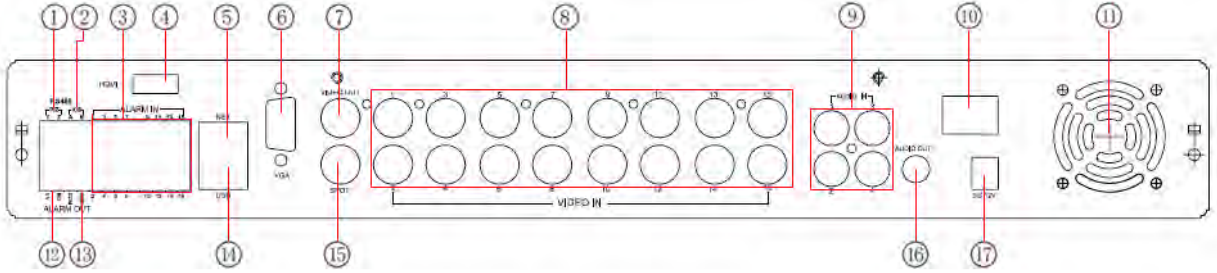


Fig 2.7 Rear Panel Description (SA-16400NE)

Item	Name	Description
1	P/Z	Connect to speed dome (RS485 PTZ cameras and keyboard)
2	K/B	Connect to keyboard
3	ALARM IN	Connect to external sensor1-16
4	HDMI port	Connect to high-definition display device (optional)
5	NET	Network port
6	VGA port	VGA output, connect to monitor
7	Video out	Connect to monitor
8	Video in	Video input channels from 1-16
9	Audio in	4 CH Audio input
10	POWER SWITCH	Power on/off
11	FAN	For cooling the device
12	+ 5V and GND	+5 V and Grounding
13	ALARM OUT	1-ch relay output. Connect to external alarm.
14	USB port	To connect external USB devices like USB flash, USB HDD for backup or update firmware; or connect to USB mouse
15	Spot out	Connect to monitor as an AUX output channel by channel. Only video display, no menu show
16	Audio out	Audio output, connect to the sound box
17	POWER INPUT	DC12V

2.3.5 Rear Panel Description (SA-4100HD(1U))

The rear Panel interface for 4-ch is shown as Fig 2.5:

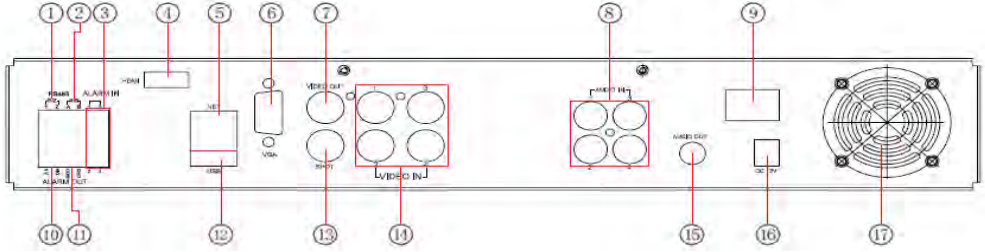


Fig 2.5 Rear Panel Description (SA-4100HD(1U))

Item	Name	Description
1	P/Z	Connect to speed dome (RS485 PTZ cameras and keyboard)
2	K/B	Connect to keyboard
3	ALARM IN	Connect to external sensor1-4
4	HDMI port	Connect to high-definition display device (optional)
5	NET	Network port
6	VGA port	VGA output, connect to monitor
7	Video out	Connect to monitor
8	Audio in	4 CH Audio input
9	POWER SWITCH	Power on/off
10	+ 5V and GND	+5 V and Grounding
11	ALARM OUT	1-ch relay output. Connect to external alarm.
12	USB port	external USB devices (USB flash, USB HDD for backup or update firmware) or connect to USB mouse
13	Spot out	Connect to monitor as an AUX output channel by channel. Only video display, no menu show
14	Video in	Video input channels from 1-4
15	Audio out	Audio output, connect to the sound box
16	POWER INPUT	DC12V
17	FAN	For cooling the device

2.3.6 Rear Panel Description (SA-8200HD(1U))

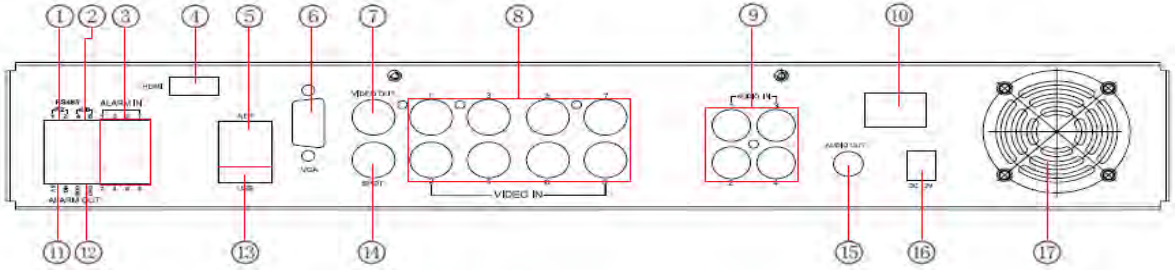


Fig 2.6 Rear Panel Description (SA-8200HD(1U))

Item	Name	Description
1	P/Z	Connect to speed dome (RS485 PTZ cameras and keyboard)
2	K/B	Connect to keyboard
3	ALARM IN	Connect to external sensor1-8
4	HDMI port	Connect to high-definition display device (optional)
5	NET	Network port
6	VGA port	VGA output, connect to monitor
7	Video out	Connect to monitor
8	Video in	Video input channels from 1-8
9	Audio in	4 CH Audio input
10	POWER SWITCH	Power on/off
11	+ 5V and GND	+5 V and Grounding
12	ALARM OUT	1-ch relay output. Connect to external alarm.
13	USB port	To connect external USB devices like USB flash, USB HDD for backup or update firmware; or connect to USB mouse
14	Spot out	Connect to monitor as an AUX output channel by channel. Only video display, no menu show
15	Audio out	Audio output, connect to the sound box
16	POWER INPUT	DC12V
17	FAN	For cooling the device

2.3.7 Rear Panel Description (SA-16400HD(2U)/SA-32800)

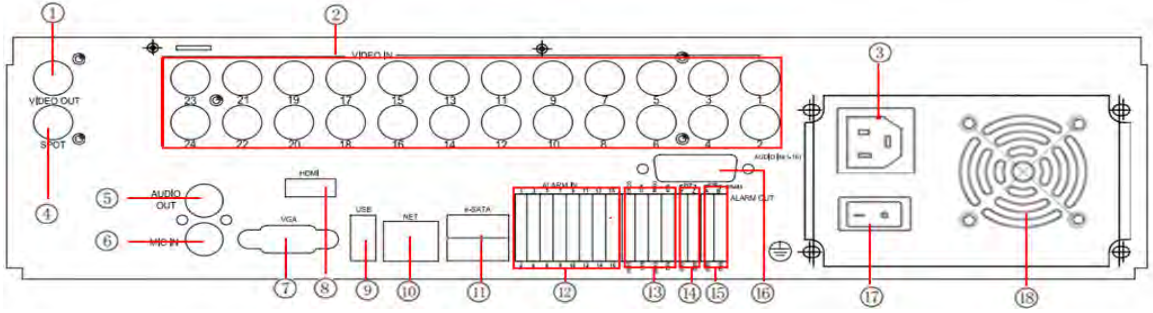


Fig2.1 Rear Panel Description (SA-16400HD(2U)/SA-32800)

Item	Name	Description
1	Video out	Connect to monitor
2	Video in	Video input channels(from 1-24 for 24-ch DVR/ 1-32 for 32-ch DVR)
3	POWER INPUT	AC 110Vor 110V
4	Spot	An AUX output channel by channel (no multiscreen). No menu display
5	Audio out	Audio output, connect to the sound box
6	MIC IN	Talk
7	VGA port	VGA output, connect to monitor
8	HDMI port	Connect to high-definition display device
9	USB port	external USB devices (USB flash, USB HDD for backup, update firmware, USB mouse)
10	LAN	Network port
11	E-SATA	Connect to HDD for backup
12	ALARM IN	Connect to external sensor1-16
13	ALARM OUT	4ch relay output. Connect to external alarm.
14	P/Z	Connect to speed dome
15	K/B	Connect to keyboard
16	Audio in	16 CH Audio input
17	POWER SWITCH	Switch on/off
18	FAN	For cooling the device

2.4 Remote Controller

The remote requires two AAA size batteries. For installing the batteries open the battery cover on the Remote Controller, place two batteries according to the correct polarity marked on the remote (+ and -), then fasten the battery cover to back its place.

***Notice**: if the remote is not working follow those steps:*

1. Check batteries poles are according to the marking inside the remote and check the remote.

2. Replace the batteries and check the remote.

3. Check IR sensor is not covered and check the remote.

if you suspect the remote is malfunctioned contact your dealer to replace your remote control unit

The interface of remote controller is shown in Fig2.8 Remote Controller.

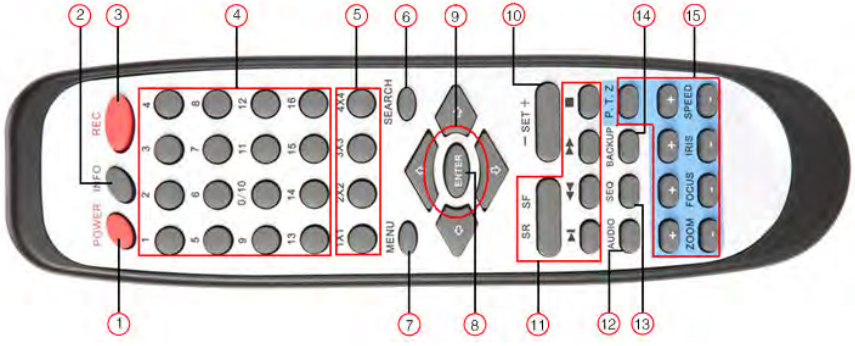


Fig 2.8 Remote Controller

Item	Name	Function
1	Power Button	Soft switch off to stop firmware running. Do it before power off.
2	INFOR Button	Get information about the DVR like firmware version, HDD information
3	REC Button	To record manually
4	Digital Button	Input digital or choose camera
5	Multi Screen Button	To choose multi screen display mode
6	SEARCH Button	To enter search mode
7	MENU Button	To enter menu
8	ENTER Button	To confirm the choice or setup
9	Direction Button	Move cursor in setup or pan/tilt/zoom PTZ
10	+/- Button	To increase or decrease the value in setup
11	Playback Control Button	To control playback, Fast forward/rewind/stop/single frame play
12	AUDIO Button	To enable audio output in live mode
13	Auto Dwell Button	To enter auto dwell mode
14	BACKUP Button	To enter backup mode
15	PTZ Control Button	To control PTZ camera: Move camera/zoom/focus/iris/speed control

Operation processes with remote controller to control multi-DVR systems:
The device ID of the DVR can be changed. The default device ID is 0 (DVR and remote). To use the remote controller for a single DVR, don't reset the device ID, You can operate the DVR (with ID=0) directly. In case of multiple DVR systems follow these steps:
Step1: Activate remote controller to control DVR: enable DVR: point the IR led of the remote controller to the IR receiver on the front panel of the DVR. Press the number key 8 twice. Input device ID (Range from: 0-65535) with other digital number: 0-9. Press the ENTER button to confirm.
Step2: User may change the device ID of the DVR: main menu => System configuration=>Basic configuration=>device ID. It is not recommended to set other DVRs with the same device ID if it is in the same room. Please note that longer IDs are less convenient to operate.
Step3: To cancel controller ⇔ DVR connection: turn the IR led of the remote controller to the IR receiver that on the front panel, press the number key 8 twice, then input the device ID that needs to be cancelled from controlling, press ENTER button to confirm. After that, the DVR will not be controlled by that remote controller.

2.5 Control with Mouse

2.5.1 Connect Mouse

The DVR supports USB mouse through the ports on the rear panel, please refer to Fig 2.8.

***Notice**: If mouse is not detected or doesn't work:*

1. Make sure the mouse is plugged to the correct USB mouse port not the USB port 2. Replace the mouse

2.5.2 Use Mouse

In live:

Double-click (left button) on one camera screen for full screen display. Double-click again to return to the previous screen display. Click right button to show the control bar at the bottom of the screen. Here are all control and setup. Click right mouse again to hide the control bar.

In setup:

Click left button to enter or accept. Click right button to cancel, or to return to the previous menu. To input a value, move cursor to the blank area and click left button once. An virtual keyboard will appear as in Fig2.9. It supports digitals, letters and symbols input.

Some values can be modified by the wheel, such as time. Move the cursor above the value, and roll the wheel to change the value.

Mouse drag; I.e. Set motion detection area: click customized, hold and drag to set motion detection area. Set schedule: hold and drag left button to set schedule time

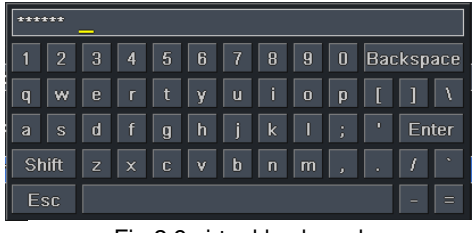


Fig 2.9 virtual keyboard

In playback or backup:

Click left button to choose the options. Click "X" button to return to live mode.

In PTZ control:

Click left button to choose the buttons to control the PTZ. Click right button to return to live.

Notice: Mouse is the default tool in all the operation below unless indicated otherwise.

3 Basic Function Instruction

3.1 Power On/Off

Before you power on the unit, please make sure **all the cables** are connected properly.

3.1.1 Power on

Step1: Plug in the power; switch on the power button (16-channel DVR only)

Step2: The device will start loading, and the power indicator will have blue color.

Step3: Before loading the camera view, a WIZZARD window will be pop-up and you could change the time zone, time setup, network configuration, record configuration, disk management and more. User may or may not perform initial setup here or perform the setup from the menu as described on the relevant chapters. The setup Wizard is optional, to skip this step click on the "Exit" button. To disable the wizzard mark the option "startup wizzard" on the first page of the startup.

Notice: this serial device displays the menu either on VGA monitor or on the BNC monitor. To switch between the two outputs press the "ESC" button until you hear a long beep.

If there is no display or you can only see the cameras without the main menu after clicking the right button on the mouse press the "esc" button until a beep sounds. The VGA and video out (BNC) displays will switch.

3.1.2 Power off

You can power off the device by using remote controller, keyboard or mouse.

By remote controller: Press the "Power" button, the Shut down window will appear, click "OK", the unit display a message on the screen, "it is now safe to unplug the DVR". Now you may disconnect the power line.

By keyboard and mouse: Step1: enter into Menu, then select “System Shut Down” icon, the Shut down window will appear, click OK, the unit display a message on the screen, "it is now safe to unplug the DVR". Now you may disconnect the power line.

3.2 Login

You can login and logout from the DVR system. After logout the user cannot operate except changing the multi-screen display.

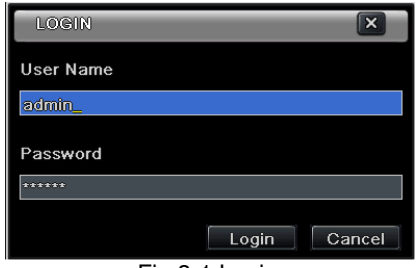


Fig 3-1 Login

Notice: The default user name is "admin" and the password is "123456"

To change the password, or to add or delete a user refer to Fig 4.7 "User management configuration".

3.3 Live preview

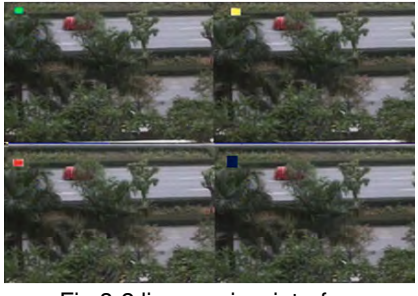


Fig 3-2 live preview interface

Symbol	Meaning
Green	Manual record
Yellow	Motion detection record
Red	Sensor Alarm record
Blue	Schedule record

3.3.1 Live playback

Click Play button to playback recordings. You can change settings by clicking on the buttons on screen.

Fig 3-3 live playback

4 Main menu setup guide

Click right mouse or press ESC button on the front panel: the control bar will appear on the bottom of the screen, refer to Fig 4-1:

Fig 4-1 main menu toolbar

Click the icon beside "screen mode" to select the channels. There is an option for 6/8/13 channels with a main channel in the middle of the screen. You can arrange the order by drag and drop for the live display.

Dwell: this mode is used to display a 1/4/6/9/16 picture-screen that alternate every few seconds. To modify the settings go to main menu=>setup=>live=>main monitor.

Color: this mode is used to adjust the color of the live pictures.

E-Zoom: this mode is used to digitally magnify an image on live or recorded data: Left click the picture, right click and select Zoom. Simply press left mouse and drag the picture to view different parts of the image. Double-click the left mouse to exit E-Zoom mode.

Volume: this mode is used to mute or unmute and to select the audio channel if the audio out is connected to an amplified monitor.

PTZ: this mode is used to control pan/tilt/zoom and to access the menu of some smart PTZ cameras. The control will change rotation position, speed of the dome and start track, auto scan or cruise in this interface. Refer to PTZ manual for more details.

Snap: (NE series) click this button to create a snapshot of the live cameras. These pictures will be saved on the SATA disk.

Record: this mode is used to start or stop continues record.

Playback: this mode is used to start playback of the last 30 minutes recorded on the DVR.

Move tool: this mode is used to move the menu.

Function menu: this mode is used to reach the main menu as Fig 4-2; you can also press MENU button on the front panel or operate with remote controller to display the main menu. Click Setup icon will pop-up the configuration menu:

Fig 4-2 main menu

configuration menu

4.1 Basic configuration

The basic configuration has three sub menus: system, date& time and DST.

4.1.1 System

Step1: enter into system configuration=>basic configuration=>system; refer to Fig 4-3:

Step2: in this interface you can setup the device name, device ID, video format, max network users, VGA resolution and language. The definitions for every parameters display as below:

Device name: the device name can be displayed on the client end or CMS; which helps recognizing the device remotely.

Video format: there are two modes: PAL and NTSC. Selection of the video format must be identical to that of cameras.

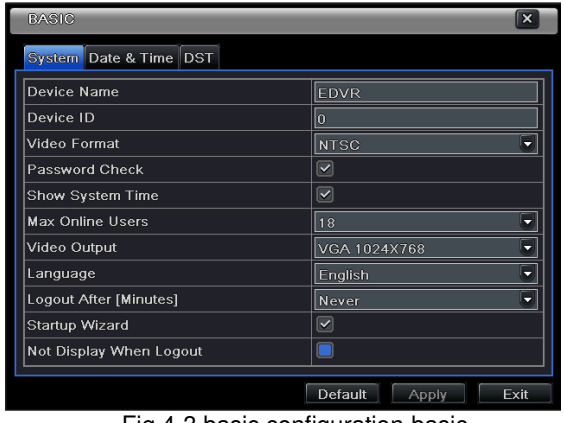


Fig 4-3 basic configuration-basic

Password check: enabling this option prompts user name and password before user can perform operations on the DVR.
Show time: displays the time in live view.
Show wizard: This option enables the wizard on startup.
Max network uses: set the maximum simultaneous users via network connection
VGA resolution: the resolution of live display interface, range from: **VGA800*600, VGA1024*768, VGA1280*1024 and CVBS.**
Note : When switching between VGA and CVBS connect to relevant monitor. (Also see 3.1.1)
Language: setup the menu language.
Note: after changing the language or video output, the device will reboot.

4.1.2 Time & date

System configuration=>basic configuration=>time&date; refer to Fig 4-4.
Set the date format, time format, time zone in this interface; mark “sync time with NTP server” to refresh NTP server date or adjust system date manually.
Reset default setting; click the “default” button and then “apply” button to save the setting. click the “exit” button to exit current interface.

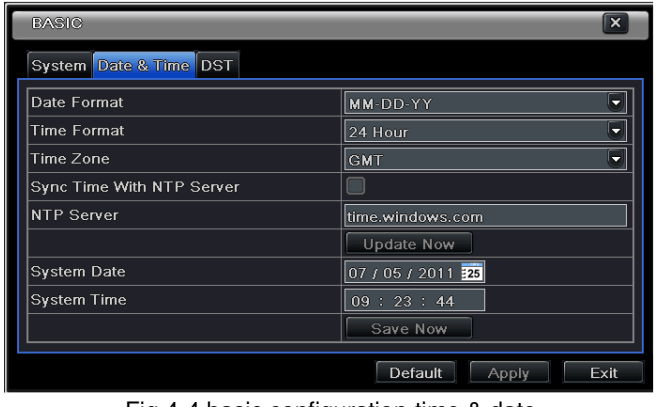


Fig 4-4 basic configuration-time & date

4.1.3 DST

System configuration=>basic configuration=>DST; refer to Fig 4-5:

In this interface you can enable daylight saving time, set the DST time offset, mode, start & end month/week/date.

Reset default setting; click the “default” button and then “apply” button to save the setting. Press the “exit” button to exit current interface.

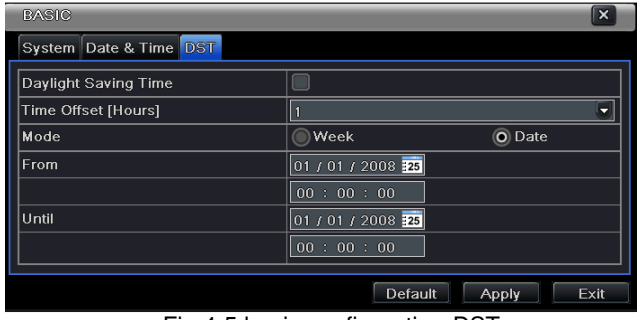


Fig 4-5 basic configuration-DST

4.2 Live configuration

The live configuration has four submenus: live, host monitor, Spot and mask.

4.2.1 Live

This option is used to change camera name, adjust colors: brightness, hue, saturation and contrast.

Step1: System configuration => live configuration => live; refer to Fig 4-6:

Note: Clicking on a camera Name will pop up a soft keyboard. Now you can change the camera name.

Step2: if you unmark camera name the name will be hidden.

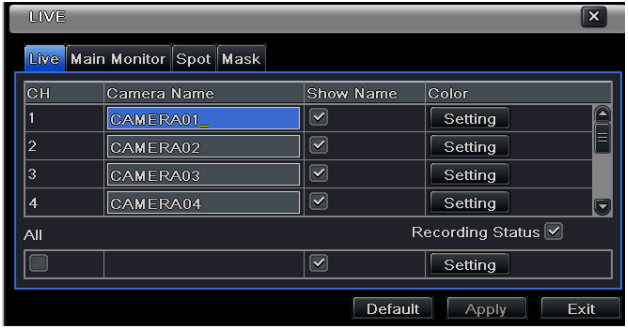


Fig 4-6 live configuration→live

Fig 4-7 live-color adjustment

Step3: clicking the “setting” button will pop-up a window (Fig 4-7) in this interface, you can adjust brightness, hue, saturation and contrast in live. The “default” button will restore the DVR to default live setting, click “OK” button to save the setting.
Step4: you can setup all channels with same parameters by marking “all”, and then "Apply".

4.2.2 Main monitor

System configuration=>live configuration=>main monitor; refer to Fig 4-8. Select group size: 1×1,2×2,2×3,3×3,4×4 and channels on each group.

Dwell time: the time interval for a picture group before switching to the next group.

After selecting the split mode setup the picture groups. Click button to setup the previous channel groups of dwell picture.

Fig 4-8 live configuration-host monitor

Click button to set the next channel group.

Step5: click “default” button to resort default setting; click “apply” button to save the setting; click “exit” button to exit current interface.

4.2.3 Spot

Step1: enter into system configuration→live configuration→Spot; refer to Fig 4-9:

Step2: select split mode: 1×1and channel

Step3: dwell time: the time interval for a certain dwell picture display switching to next dwell picture display

Step4: select the split mode and then setup current picture group. Click button to setup the previous channel groups of dwell picture. Click button to set the latter channel groups of dwell picture.

Reset default setting; click the “default” button and then “apply” button to save the setting. Press the “exit” button to exit current interface.

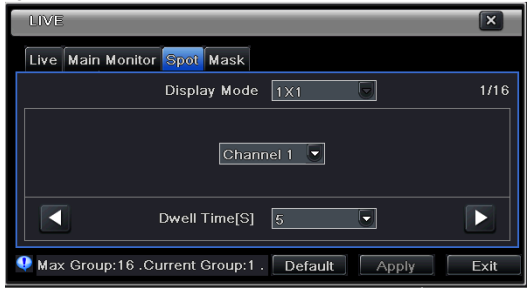


Fig 4-9 live configuration-Spot

4.2.4 Mask

You can add up to three privacy mask areas on the live image picture, to block view and recording.

Setup mask area: click setting button, enter live image and press left mouse to create or move a privacy mask, refer to the picture on the next page. Press the "Apply" button to save your setting.

Delete mask area: double click on the mask area you want to delete. Click Apply button to save the setting.

Fig 4-10 live configuration-mask

Setup mask area

Live image mask area

4.3 Record configuration

Record configuration includes six sub menus: enable, record bit rate, time, recycle record, stamp and snap for NE or HD series.

4.3.1 Enable

Step1: enter into system configuration→record configuration→enable; refer to Fig 4-11:

Fig 4-11 record configuration-enable

Parameter	Meaning
Record	Record switch of every channels
Audio	Enable live record audio

Step2: mark record, audio and record time to enable audio/video record.

Step3: user can setup all channels with the same parameters by marking “all”, then "apply.

4.3.2 Record stream

Step1: go to system configuration→record configuration→record bit rate; refer to Fig 4-12:
Step2: setup rate, resolution, quality, encode and max bit stream
Step3: setup every channel with the required parameters, or mark "All" and set to apply the changes to all channels.
Reset default setting; click the "default" button and then "apply" button to save the setting. Press the "exit" button to exit current interface.

Note: if the rate value set is over high the maximum resources of the device, the value will be adjusted automatically.

Fig 4-12 record configuration-record bit rate

Parameter	Meaning
Rate	Range from: 1-30（NTSC）1-25(PAL)
Resolution	Support CIF and D1
Quality	The higher the value is, the clearer the recorded image is. Six options: lowest, lower, low, medium, higher and highest.
Encode*	VBR and CBR
Max bit stream*	Range from: 64 Kbps, 128 Kbps, 256 Kbps, 512 Kbps, 768 Kbps, 1Mbps, 2 Mbps

***Only in NE or HD Series**

4.3.3 Time

Step1: go to system configuration=>record configuration=>time; refer to Fig 4-13:
Pre-alarm record time: prerecord time before being triggered; (motion/sensor) triggering.
Post-alarm record: recording time after the alarm has stopped. There five options: 10s, 15s, 20s, 30s, 60s, 120s, 180s and 300s.

Expire time: the maximum time a recording will be in the system. If the set date is overdue, the record files will be deleted automatically. To setup all channels with the same parameters mark “all” and then click "apply".

Reset default setting; click the “default” button and then “apply” button to save the setting. Press the “exit” button to exit current interface.

Fig 4-13 record configuration-time

4.3.4 Stamp

Stamp: Change the position of the camera name or the time stamp.

Step1: configuration=>record configuration=> stamp; refer to Fig 4-14: mark camera name, time stamp; click Setting button. Use cursor to drag the camera name and time stamp to the desired positions. To setup all channels with the same parameters mark “all” and then click "apply".

Reset default setting; click the “default” button and then “apply” button to save the setting. Press the “exit” button to exit current interface.

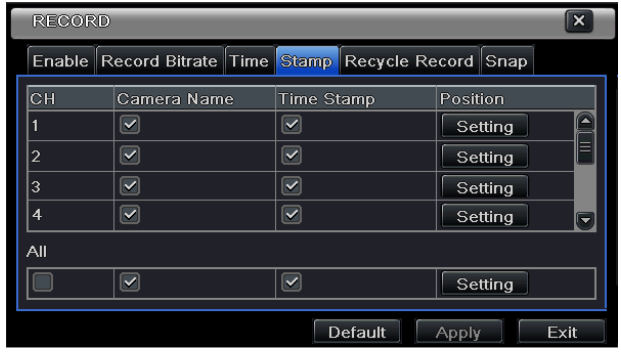
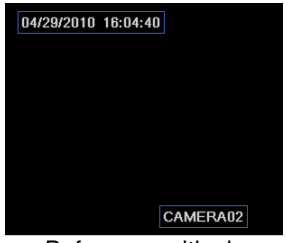
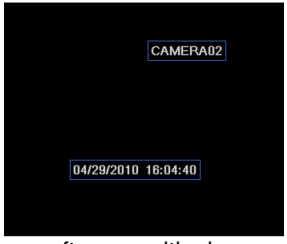


Fig 4-14 record configuration-stamp



Before repositioning



after repositioning

4.3.5 Recycle record

System configuration => record configuration => recycle record; mark "recycle record" to enable recycle recording. When the disk is full the new files will overwrite the earliest files and keep recoding after the HDD is full; if You disable this function the DVR will stop recording when the HDD is full.

Reset default setting; click the “default” button and then “apply” button to save the setting. Press the “exit” button to exit current interface.

4.3.6 Snap

This option is used to set up Resolution, quality, snap shot interval and the number of pictures taken.

4.4 Schedule configuration

Schedule configuration includes three sub menus: schedule, motion and alarm.

4.4.1 Schedule

This table represents the days in a week from Sunday to Saturday, and on the top the 24 hours of a day. Click the grid to do relevant setup. Blue means checked area and gray means unchecked area.

Step1: enter into system configuration→schedule configuration→schedule; referring to Fig 4-15:

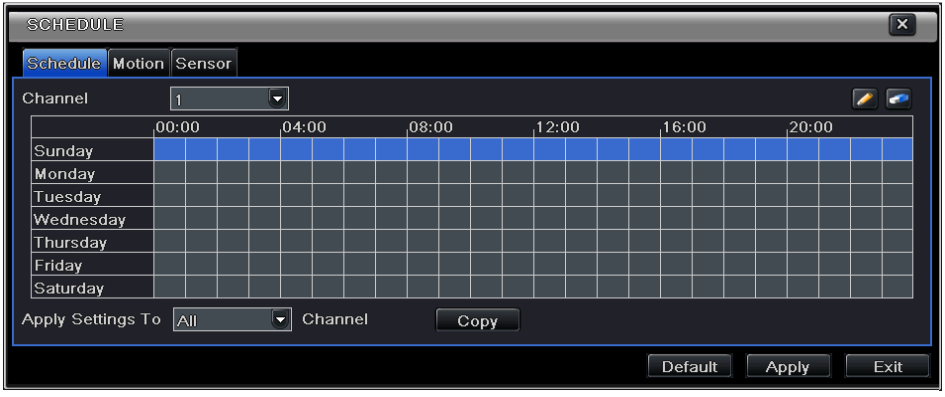


Fig 4-15 schedule configuration-schedule

Step2: select channel and double-click to pop up a window as Fig 4-16. Now you can edit week schedule:

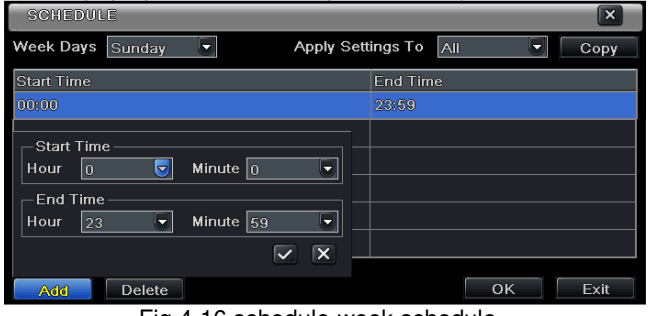


Fig 4-16 schedule-week schedule

- Press the “add” button to add a certain day schedule or press the “delete” button to delete the selected schedule; Copy: You can copy this schedule to other day by pressing "copy" then "ok".

Click “OK” button to save the setting; click “Exit” button to exit current interface.

- If the user wants to apply the schedule setting of certain channel to other or all channels, he needs to select channel and click “Copy” button.

4.4.2 Motion

Step1: enter into system configuration→schedule configuration→motion; refer to Fig 4-17:

Step2: the setup steps of motion are Similar to the schedule; Refer to 4.4.1 Schedule for details.

Fig 4-17 schedule configuration-motion

Note: the default schedule of motion detection is full-selected, that is, the color of schedule setting interface is blue.

4.4.3 Sensor

Step1: enter into system configuration→schedule configuration→alarm; refer to Fig 4-18:

Step2: the setup steps of alarm are Similar to the schedule; Refer to 4.4.1 Schedule for details.

Note: the default schedule of motion detection is full-selected, that is, the color of schedule setting interface is blue.

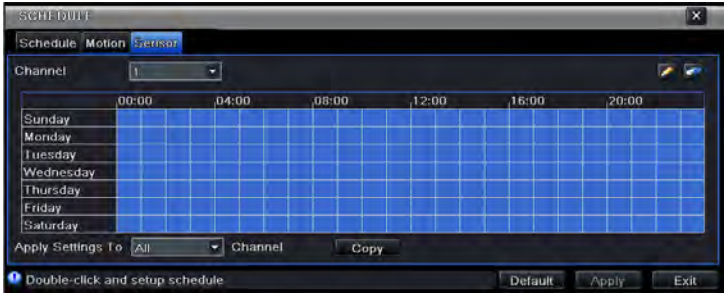


Fig 4-18 schedule configuration-sensor

4.5 Alarm configuration

Alarm configuration includes five sub menus: sensor, motion, video loss, other alarm and alarm out.

4.5.1 Sensor

Sensor includes three sub menus: basic, alarm handling and schedule.

- Basic

system configuration => alarm configuration => sensor => basic; Refer to Fig 4-19: Enable sensor alarm and then set the alarm type according to triggered alarm type. Two option: NO and NC (Normally open/closed).
To setup all channels with the same parameters mark “all” then apply to save relevant setup to all channels.
Reset default setting; click the “default” button and then “apply” button to save the setting. Press the “exit” button to exit current interface.

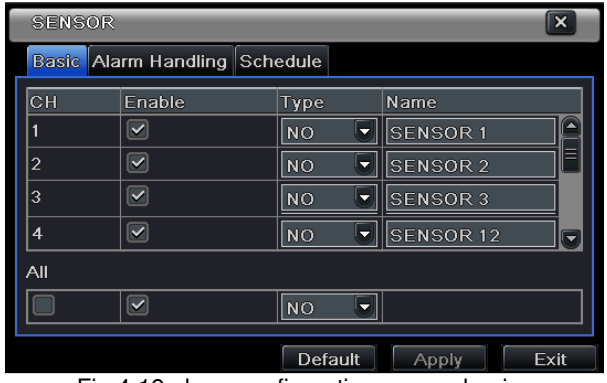


Fig 4-19 alarm configuration-sensor-basic

- Alarm handling

Step1: enter into system configuration→alarm configuration→sensor→alarm handling; refer to Fig 4-20:

- Alarm handling

system configuration => alarm configuration => sensor => alarm handling; refer to Fig 4-20: select hold time, click Trigger button, and a dialog box will pop-up as Fig 4-21: If Buzzer is selected, the sensor will prompt an alarm.

Fig 4-20 alarm handling-trigger

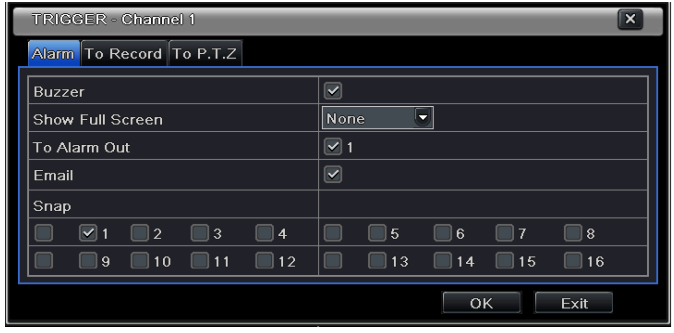


Fig 4-21 alarm configuration-sensor-alarm handling

Full screen alarm: when alarm is triggered, there will pop up full screen alarm;
Email: Select this function. When an alarm is triggered, a notification email will be sent to the designated email box including trigger events, time, snap pictures, device name, ID camera name etc.
Snap (for NE or HD series): Select channels. When an alarm is trigged, the system will automatically save the captured pictures from the selected channel. If user activates the Email function, these pictures will also be sent to the designated email.
To alarm out: After selecting the channel, there will be triggered alarm out in the designated channel. Click OK button to save the setting; click Exit button to exit the current interface.
To record: Select recoding channels. It will record the camera when alarm is triggered. Click OK button to save the setting; click Exit button to exit the current interface.
To P.T.Z: set linked preset and cruise for alarm. User can select any channel or multi channels as linked channels. Click OK button to save the setting; click Exit button to exit the current interface.
To setup all channels with the same parameters mark “all” then apply to save relevant setup to all channels.
Reset default setting; click the “default” button and then “apply” button to save the setting. Press the “exit” button to exit current interface

- Schedule

System configuration => alarm configuration => sensor => schedule; Refer to Fig 4-22: The setup steps of sensor schedule are similar with all schedules; Refer to 4.4.1 Schedule for details.

Note: the default schedule of sensor is to be always on: the color of schedule setting interface is blue.

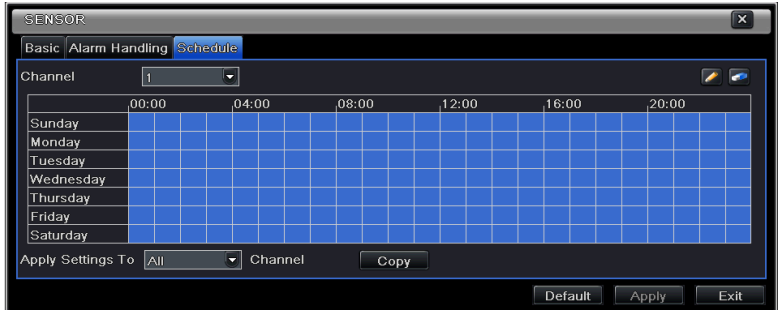


Fig 4-22 sensor-schedule

4.5.2 Motion

Motion includes two sub menus: motion and schedule.

- Motion

System configuration => alarm configuration => motion; refer to Fig 4-23: Enable motion alarm, set alarm hold time (time interval between two adjacent detective motions). If there is an additional motion detected during the interval period which is considered continuous movement; otherwise, it will be considered that those two adjacent detective motions are two different motion events. Click Trigger button, a dialog box will pop-up: The setup steps for motion trigger are similar to the alarm handling; Refer to Chapter 4.5.1 Sensor => alarm handling for more details.

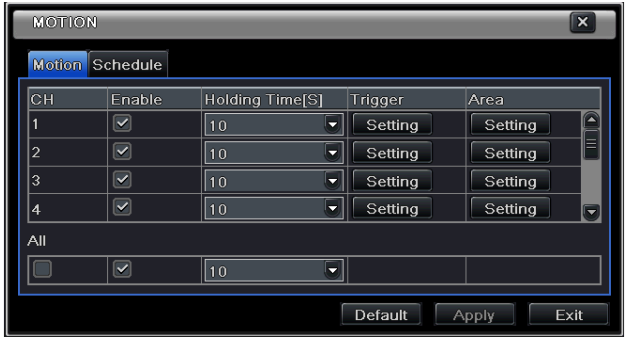


Fig 4-23 alarm configuration-motion

Next: click Area button, a dialog box will pop-up as Fig 4-24 a and 4-24b.

To set the sensitivity value (1-8) drag the slide bar in the Area interface, the default value is 6. The higher the value the higher the sensitivity to movement. Due to the sensitivity is influenced by color and time (day or night), adjust its value according to the practical conditions; click icon, set the whole area as detection area; click icon, the set detection area will be cleared; click icon, user can test if the sensitivity value and motion area are suitable accordingly（refer to following picture）; Click icon, to save the setting; click icon, exit current interface.

Note: to set the area drag the mouse to the desired detection area, click icon to clear all set detection area firstly, and only then set the area.

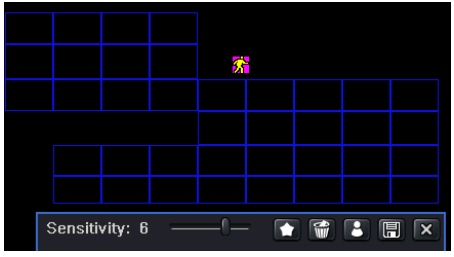


Fig 4-24b motion-area

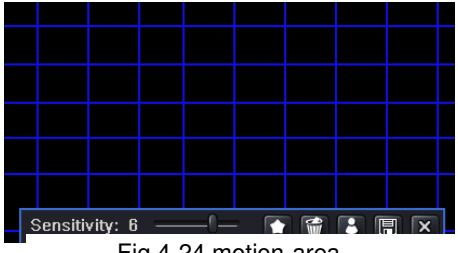


Fig 4-24 motion-area

To setup all channels with the same parameters choose “all” then apply to save relevant setup to all channels.

Reset default setting; click the “default” button and then “apply” button to save the setting. Press the “exit” button to exit current interface**.**

- Schedule

system configuration => alarm configuration => schedule; refer to Fig 4-25: the setup steps of alarm schedule are similar to those in 4.4.1

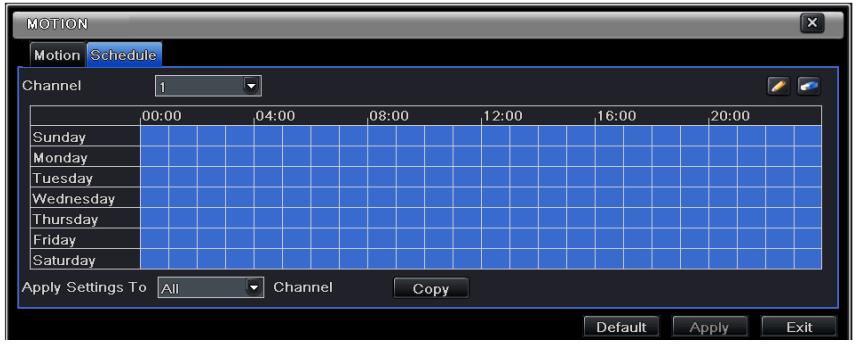


Fig4-25 alarm configuration-schedule

4.5.3 Video loss

System configuration => alarm configuration => video loss; refer to Fig 4-26: the setup steps of video loss trigger are similar to the alarm handling; Refer to Chapter 4.5.1 Sensor => alarm handling for more details.

To setup all channels with the same parameters choose “all” then apply to save relevant setup to all channels.

Reset default setting; click the “default” button and then “apply” button to save the setting. Press the “exit” button to exit current interface.

Fig 4-26 alarm configuration-video loss

4.5.4 Other alarm

First enter into system configuration→other alarm; refer to Fig 4-27:

Disk full: You can choose the capacity of the disk storage and select the related alarm. If the disk is full, the system will perform according to the setup.

IP conflict: if there is an IP address conflict within the same network, the system will perform according to the setup.

Disconnect: if the system recognizes a network disconnection the system will perform according to the setup.

Disk Warning: if the disk sends a warning the system will perform according to the setup.

Fig4-27 other alarm

Reset default setting; click the “default” button and then “apply” button to save the setting. Press the “exit” button to exit current interface.

Select a hard disk in the list box. When the disk capacity is lower than that in the value, a message will appear on the lower right of the live image.

4.5.5 Alarm out

Alarm out includes three sub menus: alarm out, schedule and buzzer

- Alarm out

System configuration => alarm out; refer to Fig 4-28: You can set relay alarm out name and select hold time (the interval time between the two adjacent alarms).

To setup all channels with the same parameters choose “all” then apply to save relevant setup to all channels.

Reset default setting; click the “default” button and then “apply” button to save the setting. Press the “exit” button to exit current interface.

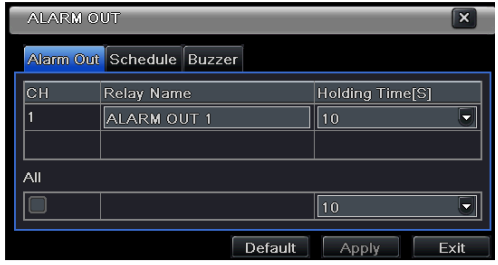


Fig 4-28 system configuration-alarm out

- Schedule

Configuration => schedule; the setup steps of alarm out schedule are similar to those in 4.4.1

Note: the default schedule of motion detection is set to always on: the color in the schedule is blue.

- Buzzer

Configuration => buzzer; mark Buzzer and set buzzer alarm hold time.

4.6 Network configuration

Network configuration includes four submenus: network, sub stream, Email and other settings.

4.6.1 Network

Step 1: Main menu => system configuration => network configuration => network; refer to Fig4-29:

The default HTTP port is 80. If the value has changed, you need to add the port number after the IP address; if the HTTP port is set to 82, and the IP address is 192.168.0.25 the full address is: http://192.168.0.25:82 (both LAN and WAN)

The server port is the communication port.

If the option "Obtain an IP address automatically" is marked, the device will obtain the IP address, Subnet Mask, Gateway and DNS servers from the DHCP (e.g. a router).

You can use PPPoE protocol to directly connect the DVR to an ADSL modem. Mark the "PPPoE" checkbox, and add the user name and password, click "Apply" then "Test" to see if there is a problem with the data or connection.

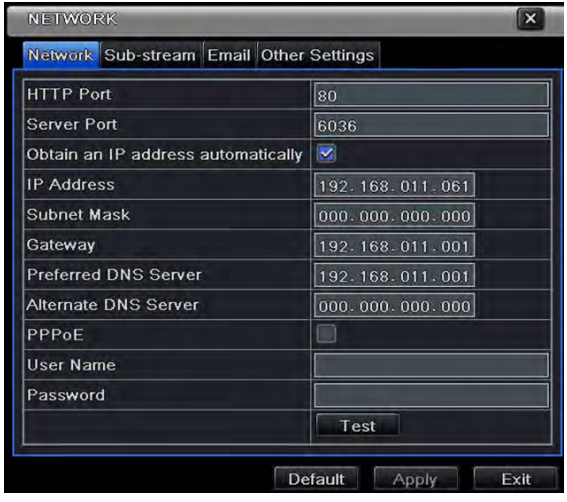


Fig 4-29 network configuration-network

Tip: to connect multiple systems use consecutive IP and ports.

For example: use 10.0.0.95 with ports 95 and 6095,
and 10.0.0.96 with ports 96 and 6096.

4.6.2 Sub stream

Fig 4-30 network configuration-sub stream

System configuration => network configuration => sub stream; refer to Fig 4-30: select fps, resolution, quality, encode and max bit rate

To setup all channels with the same parameters choose "all" then apply to save relevant setup to all channels.

Reset default setting; click the "default" button and then "apply" button to save the setting. Press the "exit" button to exit current interface.

Definitions and descriptions of Sub stream:

Parameter	Meaning
FPS	Range from: 1-25
Resolution	Support CIF
Quality	The quality of the clients' image. The higher the value is, the clearer the record image. Six options: lowest, lower, low, medium, higher and highest.
Encode	**(NE series)** VBR and CBR
Max bit rate	**(NE series)** Range from: 64/128/256/512/768 Kbps, to 1-2 Mbps

4.6.3 Email

system configuration => network configuration => email; refer to Fig 4-31

SMTP Server/Port: the name and port number of SMTP server. After selecting “This server requires a secure connection (SSL)”, You can setup mail servers (such as Gmail) according to the e-mails providers requirements

Send address and password: sender’s account details.

Receive address: receiver’s email address. Here you can add at most three e-mail addresses.

Click TEST button to test the validity of the mailbox.

Attaching image: when checked the mail sent will contain snap (also see 4.3.6).

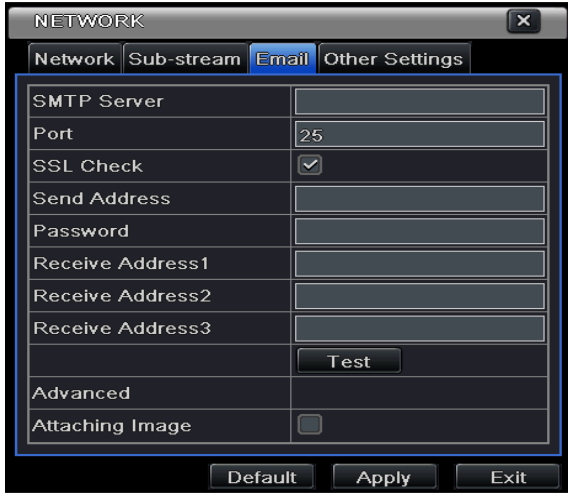


Fig 4-31 network configuration-email

4.6.4 Other settings

To enable DDNS server: user needs to input DDNS account user name and password. The host domain name is the final address of the registered website. Click TEST to test if the information is correct and the service works.

Reset default setting; click the “default” button and then “apply” button to save the setting. Press the “exit” button to exit current interface.

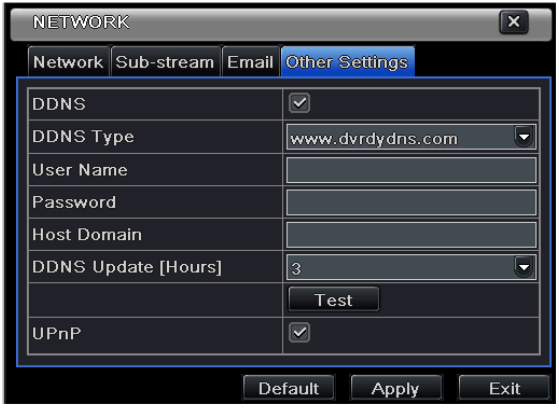
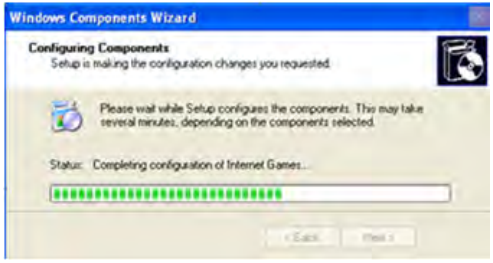


Fig 4-32 network configuration-other settings

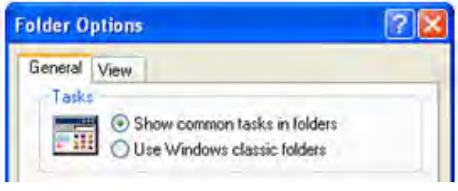
Note: The domain name server that selected by user is a banding domain name of DVR. User should logon the website which provided by the server supplier to register a user name and password firstly, and then apply for a domain name on line. After the successful application, user can access the server from the IE client by inputting that domain name.

Enable UPnP: User may select UPnP and then enable UPnP function in the user's router. Then user can access DVR through WAN. When accessing the DVR through IE, user can check the IP address by the following method: Double-click the "My Network Places" icon on the desktop in PC, select "Show icons for networked UPnP devices" in the "Network Tasks" list box, a information window will pop up, click "YES" button, "Windows Components Wizard" dialog box will pop up as shown as below picture, press "Next" to continue. After finished the installation of configuring components, the UPnP icons will display. Users can double-click certain icon and check the IP address of the device.


Windows Components Wizard
Configuring Components
Setup is making the configuration changes you requested.
Please wait while Setup configures the components. This may take several minutes, depending on the components selected.
Status: Completing configuration of Internet Games...

If “Show icons for networked UPnP devices” can’t display in the “Network Tasks” list box, please follow the below operation:

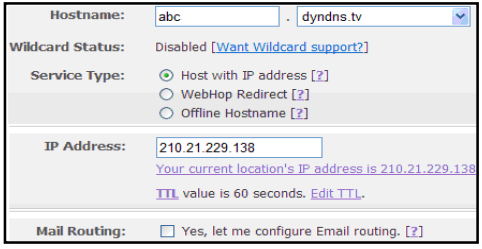
- Click “Tools”- “Folder options”
- Select the “Show common tasks in folders” in the “Tasks” check box to display the UPnP icon.



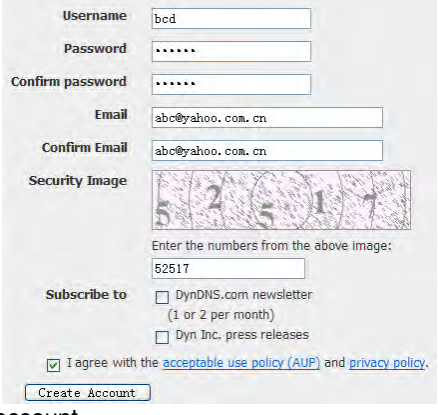
1． Domain name Registration （Take www.dyndns.com for example）

Note: Users can self-define the hostname, username and password.

Input www.dyndns.com in the IE address bar, user can access the domain name registration interface. Click” Dynamic DNS service”→”Create Free Hostname” to register. For example: Hostname is “abc.dyndns.tv. The picture is shown as follows:



After user fill in the blank, click “Add to cart”. Then Dynamic DNS Hosts dialog box will be displayed. Next, create user account. For example, the username is “bcd”, password is “123456”.



Click” Create Account” button to create user account.

2． DVR Setting

（1） Domain name

According to the domain name registration of “DDNS”， the domain name for DVR is “abc.dyndns.tv”

(2) Username and password
According to the above registration, username is “bcd”.
According to the above registration, password is “123456”

3 . Application
Connect DVR to the Network Client.

- Enter into Main menu→Network→other settings, mark DDNS, select “Dyndns” at the DDNS Sever pull down list box and input user name and password.
- Enter into configuration interface of the router to map the server port and IP address (if the user enables UPnP function, he can skip this step). Click Save button to save the setting
- Login IE browser and input registered domain name “http://www.abc.dyndns.tv”, connect to DVR client.

Note

If the value changed, user needs to add the port number when typing IP address in IE address blank .i.e. set HTTP port to 82, IP address: http://192.168.0.25, user needs to input that address: http://192.168.0.25:82 into IE browser.

Definitions and descriptions of network configuration:

DDNS server	
DDNS server	Website provided by dynamic domain name supplier. The optional: www.dns2p.net , www.meibu.com , www.dyndns.com and www.no-ip.com
User name	User name for log in the website of domain name supplier
Password	Password for log in the website of domain name supplier
Host domain	The domain name user registered at the supplier’s website.
Update interval	The interval time of upgrading DVR IP address

4.7 User management configuration

Step 1: enter into system configuration => user management configuration; refer to Fig 4-33:
Step 2: click Add button to display a dialog box as Fig 4-34:

Fig 4-33 user management configuration

Fig 4-34 add-general

① General: Input user name, password; select user type: normal and advance, input the MAC address of the PC; click OK button. Then this user will be added into the user list box; click Exit button to exit the current interface.

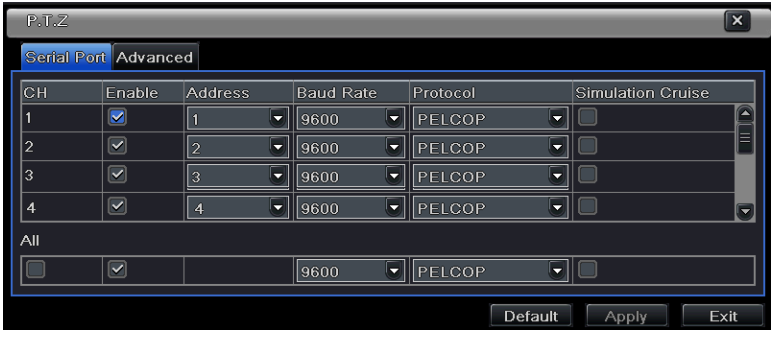
Note: when the default value of binding PC MAC address is 0, the user is not bound to a computer; the user can log to the DVR with that account only if the computer has a specific MAC address.

② Authority:

After adding a user, go to authority (Fig 4-35): In the authority interface, assign the operation limitations for that user. Click the Setup button to modify user name, user type and MAC binding address.

To delete a user choose that user in the user list box and then click "Delete" button. To change a password click the "Change Password" button and modify the password; click Exit button to exit the current interface (Fig 4-33)

Fig 4-35 add user-authority



System configuration => P.T.Z configuration => serial

Fig 4-36 P.T.Z configuration-serial port

4.8 P.T.Z configuration

P.T.Z configuration includes two submenus: serial port and advance ① Serial port

port; Refer to Fig 4-36: mark "Enable" and then setup the value of that camera (address, baud rate and protocol according to the settings of the speed dome).

To setup all channels with the same parameters choose “all” then apply to save relevant setup to all channels.

Reset default setting; click the “default” button and then “apply” button to save the setting. Press the “exit” button to exit current interface.

Definitions and descriptions of network stream:

Parameter	Meaning
Address	The address of the PTZ device
Baud rate	Baud rate of the PTZ device. Range form: 110, 300, 600, 1200, 2400, 4800, 9600, 19200, 34800, 57600, 115200, 230400, 460800, 921600.
Protocol	Communication protocol of the PTZ device. Range from: NULL, PELCOP, PELCOD, LILIN, MINKING, NEON, STAR, VIDO, DSCP, VISCA, SAMSUNG, RM110, HY, N-control.

③ Advance

Configuration => P.T.Z configuration => advance; Refer to Fig 4-37: click preset “Setting” button to see a dialog box as Fig 4-38:

Fig 4-37 P.T.Z configuration-advance

Fig 4-38 advance-preset setting

a. in the preset set interface, while clicking Setting button, a dialog will pop-up as Fig 3-39:

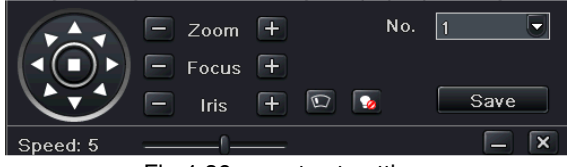


Fig 4-39 preset set-setting

b. user can control the dome rotates up, up left, down, right down, left , left down, right and up right and stop rotating; adjust the rotate speed and the value of zoom, focus and iris of the dome;

c. select the serial number of the preset point. If relevant click button to enable the PTZ wiper and click button to enable the PTZ light.

Note: PTZ must support wiper and light for these two functions to work. These two buttons are available only when using PELCOP or PELCOD.

Click Save button to save the settings, click icon to hide the tool bar, right-key can remerge it; click icon to exit the current interface.

d. in the preset interface, click OK button to save the setting; click Exit button to exit current interface without saving.

Step 3: in the Advance interface, click the cruise “Setting” button, a dialog box will pop-up as in Fig 4-40:

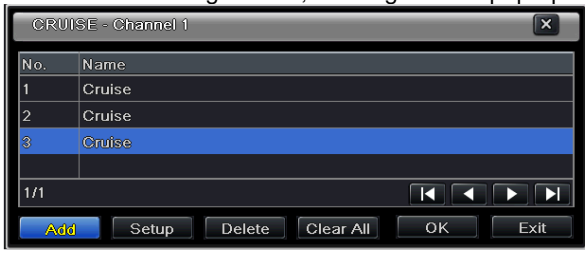


Fig 4-40; cruise set

a. click the "Add" button to add cruise line in the list box (max 8 cruise line can be added); select a cruise line and click Setup button to see a dialog box as Fig 4-41:

b. click Add icon to set the speed and time of preset point; select a preset point and then click Delete icon to delete that preset point; click the "Modify" icon to modify the setting of the highlighted preset point. Click to adjust the position of the preset point. Click Preview button to preview the cruise line; click OK button to save the setting; click Exit button to exit current interface without saving.

c. select a preset point in the cruise line list box. Click "Delete" button to delete that cruise line; click Clear all button to clear all cruise line from the list box; click OK button to save the setting; click Exit button to exit current interface.
Step4: in the Advance interface click “Setting” button, a dialog box will pop-up as Fig 4-42:

Fig 4-41 cruise set-modify cruise line

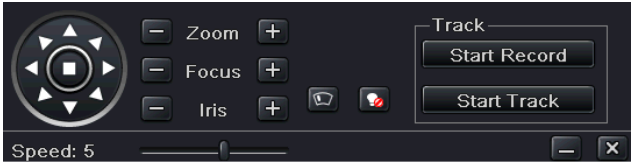


Fig 4-42 track setting

d. user can control the dome rotation up, up left, down, right down, left, left down, right and up right and stop rotating; adjust the rotate speed and the value of zoom, focus and iris of the dome; click Start Record button to record the move track of PTZ; click this button again can stop record; click Start track button to play recorded track; click this button again can stop play.

e. click icon to hide the tool bar, right-key can remerge it; click icon to exit the current interface without saving.

4.9 Advanced

Advanced configuration includes three submenus: reset, import/export and Block/Allow list for the NE or HD series.

4.9.1 Reset

Reset all settings the device will reboot.

4.9.2 Import/Export (NE or HD series)

User can export the data files into mobile storage devices as backup function, and then import specified data files from mobile storage device to DVR.

4.9.3 Block/Allow list (NE or HD Series)

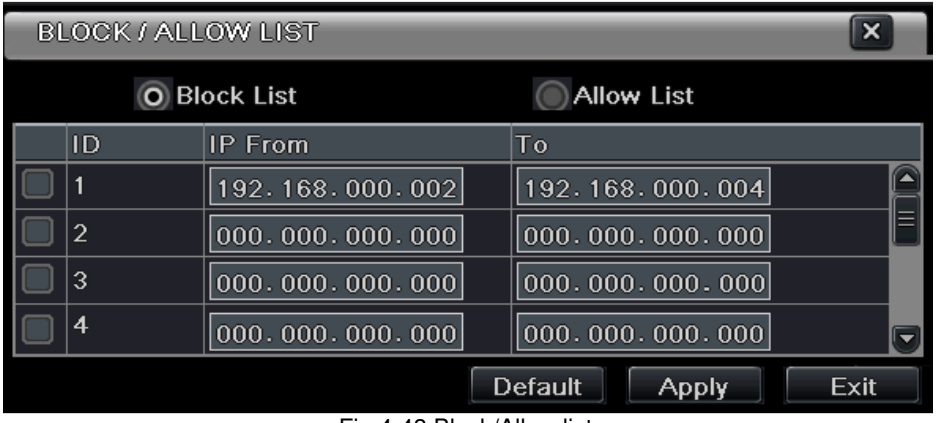


Fig 4-43 Block/Allow list

The authorized user can block/allow users from accessing the DVR according to their IP address. For example, if authorized user wants to block computer users with IP addresses from 196.168.000.002 to 196.168.000.004, authorized user can mark Block list, and then input such IP address segment. After clicking Apply the settings will be saved. If authorized users allow computer users within a certain IP address segment to access DVR, they can mark Allow-list, and add the IP to the allow list. All other users will be blocked.

5 Record search & playback and backup

Search configuration includes four submenus: time search, event search, file management and image.

5.1 Time search

Search configuration => time search; Refer to Fig 5-1:

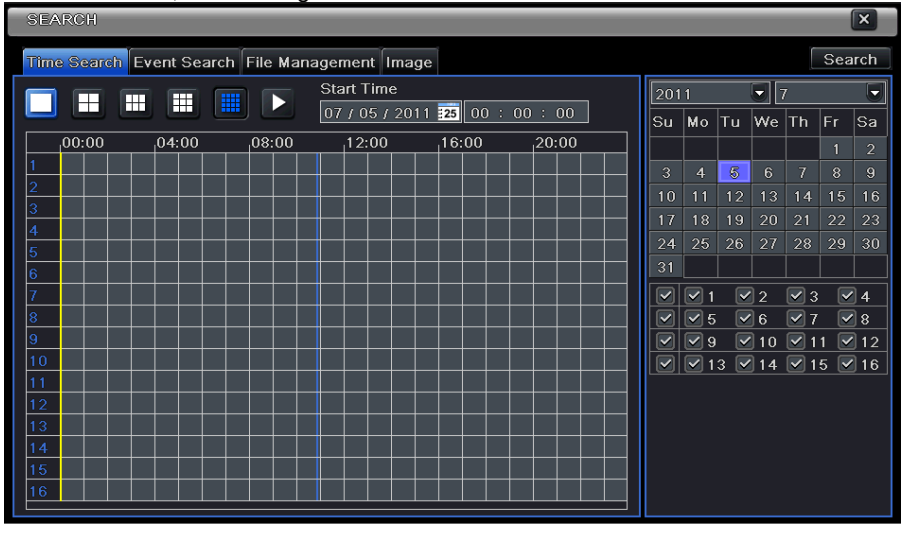
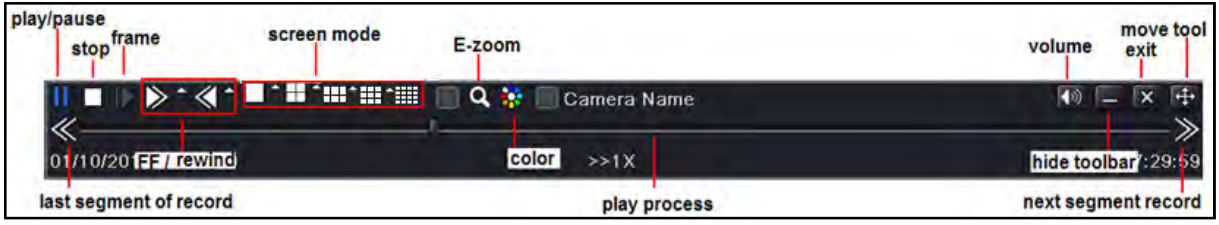


Fig 5-1 Search configuration-time search

select channel/s, screen display mode, (highlighted date in the calendar means there are recording on that date) . Select the date, press the "Search" button, click on the time grid to set the play start time or input play record time manually.

Note: the vertical column represents the time (hours), while the horizontal column represents the channels.

Another option is to click Play button to playback record on the main screen to start play of last 30 minutes.



Playback buttons

Note: when the monitor resolution is VGA800*600, the time search interface will appear a hide button, click this button, the whole interface can be expanded.

5.2 Event search

Configuration => event search; refer to Fig 5-2:

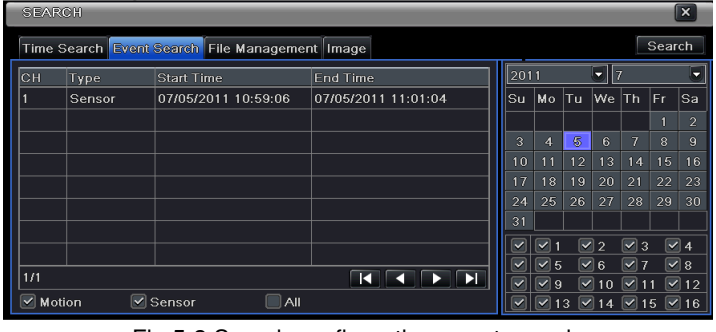


Fig 5-2 Search configuration-event search

Click on the "Search" button to display the event information in the event list box. Here you can select the date and channel. You can choose events by motion, sensor or All accordingly. Double clicking on a certain record file will start playback.
Note: when the monitor resolution is VGA800*600, the event search button will appear as a small line. Place the mouse on the line then click this button to expand the whole interface.

5.3 File management

Search configuration => file management; Refer to Fig 5-3:

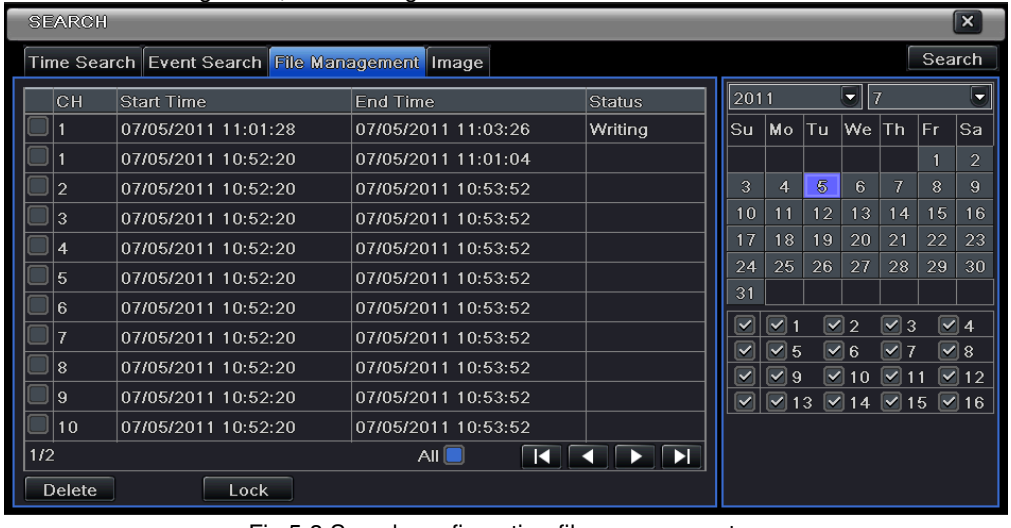


Fig 5-3 Search configuration-file management

After clicking the "Search" button, the files will be displayed in the file list box. You can make the selection according to date and channel number accordingly.

Lock: select a file and click the "Lock" button to lock this file, that file will not be deleted until unlocked.

Unlock: select a locked file and click the "Lock" button to unlock this file.

Delete: select an unlocked file and click Delete button to delete this file. After selecting the “All” button user can lock, unlock or delete all files in the file management column. Double clicking an unlocked item will playback the event.

5.4 Image (NE or HD series)

This option is used to set start, end time and channels to search the captured images and save, lock or delete these images. The capacity set is 2000 images which can be saved in the SATA disk. If there are more images saved in the SATA, those additional images will override prior images (first in first out). Double clicking an image will start playback from the time the image captured.

5.5 Backup

This unit supports backup by built-in SATA DVD Writer with USB Flash. User can also backup remotely using IE or safari browser via internet. Refer to 7.3.2 Remote backup. Enter backup configuration; refer to Fig 5-4:

Set the start & end time, select channels, and click on the search button, the searched data will be displayed on the data backup list. Selecting a data file or marking “All” to select all data files then clicking the "Backup" button will display the backup information window. In the backup information window you can check the relevant information of the backed up files, the storage type, the file type, etc. Clicking the "Start" button will start the backup.

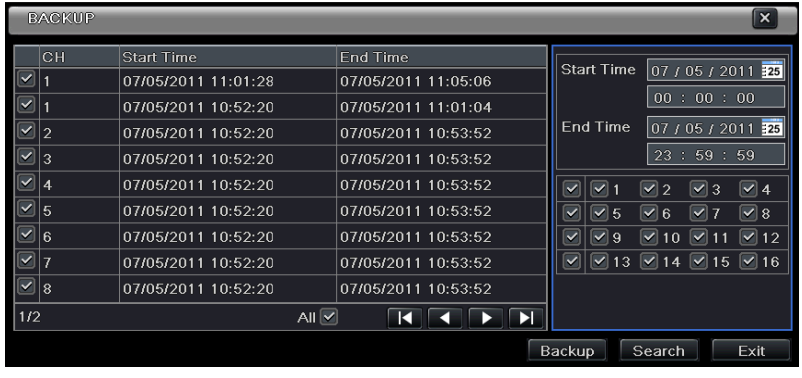


Fig 5-4 backup configuration

6 Manage DVR

6.1 Check system information

Displays the system information. This includes five submenus: system, event, log, network and online user.

6.1.1 System information

In this interface, user can check the hardware version, MCU version, kernel version, device ID, etc.

6.1.2 Event information

This option is used to check data about recorded events according to the set date.

Note: if there are overlapping files, a "+" character will show behind the channel ID.

6.1.3 Log information

This option is used to check relevant log information according to time and date.

Data files can be exported into a mobile storage device such as a USB pen-drive.

6.1.4 Network information

This option is used to check relevant parameters of the network.

6.1.5 Online information

This option is used to check the details of the current connection of online users.

Refresh: refresh the current interface.

Disconnect (NE series): the administrator authorized to disconnect the client terminal. After disconnected this way the PC will not be able to access the device for the next five minutes.

6.2 Manual alarm

This option is used to check the relevant parameters of the manual alarm.

6.3 Disk management

1. Format the disk

Go to "disk management"

Note: please format the hard disk before starting a recording. If the disk is not formatted, it will show the status of the disk-free space, and total space show OM at the bottom of screen and the DVR will not record.

Clicking the "Refresh" button will refresh the disk information in the list. To set the property of a disk click Apply. To format a hard disk, select a hard disk from the list and then click the "Format" button.

Note: all recorded files in the hard disk will be lost after formatted.

2. Advanced

User may check model, S/N, firmware, health status of the disk in this interface. User also can monitor the temperature, internal circuit, dielectric material of the disk, analysis the potential problems of the disk and warn so as to protect its data.

6.4 Upgrade

At present, the DVR only supports update via USB. Download the software from your vendor and make sure it matches the DVR. You can check the USB information in Disk management; the USB must be recognized and formatted (FAT32).

Upgrade method: the user needs to copy the upgrade software into the USB storage device and then connect it to the USB port. Enter Menu→Upgrade, the upgrade software name is displayed in the upgrade list box, select that software and then click upgrade button. It will upgrade automatically. Never disconnect the power line during backup! Please wait for a while when the system is rebooted.

6.5 Logoff

Click Log off icon, a log off dialogue box will popup, click OK button, the device will log off. If user wants to log in again, click icon to enter into user name and password to re-login.

7 Remote Surveillance

7.1 IE Remote Surveillance

To view the DVR from a network it must be connected to a modem or router through the LAN/WAN. The network setup should be done accordingly. Please refer to 4.6 Network Setup. This DVR supports IE browser, on Windows XP and Vista platform.

7.1.1 On LAN

Step 1: Enter into the DVR's Main Menu→Setup→Network interface to input IP address, Subnet Mask, etc .If using DHCP, enable DHCP in both the DVR and the router.
Step 2: Enter Record Setup to set network video parameters like resolution, frame rate etc.
Step 3: Open IE on a computer on the same network. Input the IP address of the DVR in IE address bar and press enter.
Step 4: IE will download ActiveX component automatically. Enter the username and password in the subsequent window

***Notice**:* If HTTP port is not 80, other number instead, need add the port number after IP address. For example, set HTTP port as 82, need input IP address like 192.168.0.25:82
User name and password here are the same with that used on the DVR. The default is admin and 123456.

7.1.2 On WAN

There are two ways for the DVR to connect to internet.
1. Connect the DVR to internet through router or virtual server
Step 1: Enter into the DVR's Main Menu→Setup→Network interface to input IP address, Subnet Mask, etc. If using DHCP, please enable DHCP in both the DVR and router.
Step 2: Forward IP address and port number in Virtual Server setup of the router or virtual server. Configure the firewall to allow accessing the DVR. (If the user has enabled the UPnP function in both the DVR and router, he can skip this step.)
Step 4: If users want to utilize dynamic domain name, please apply for a domain name in a DNS server supported by the DVR or router. Then add to the DVR or router.
This DVR supports www.dns2p.com, www.meibu.com, www.dyndns.com and www.no-ip.com.
Step 5: Open IE browser, input IP address, or dynamic domain name and enter.

Step 6: IE will download ActiveX automatically. Then a window pops up and asks for user name and password. Input user name and password correctly, and enter to view.

***Note**: If you cannot download and install ActiveX, please refer to Q&A.*

2. Connect the DVR to internet directly.

Step 1: Enter into the DVR's Main Menu→Setup→Network interface to enable PPPoE and then input user name and password received from your ISP. Next, click 'Apply'. The DVR will connect to the server and would give a confirmation message.

Step 2: When accessing the remote interface of DVR, user can input WAN IP to access directly (user can enter into Main menu→Information→Network interface to check IP address). The browser will download Active X control

Step 3: The following setting steps are as the same as Step4, Step 5 and Step 6 in Point 1.

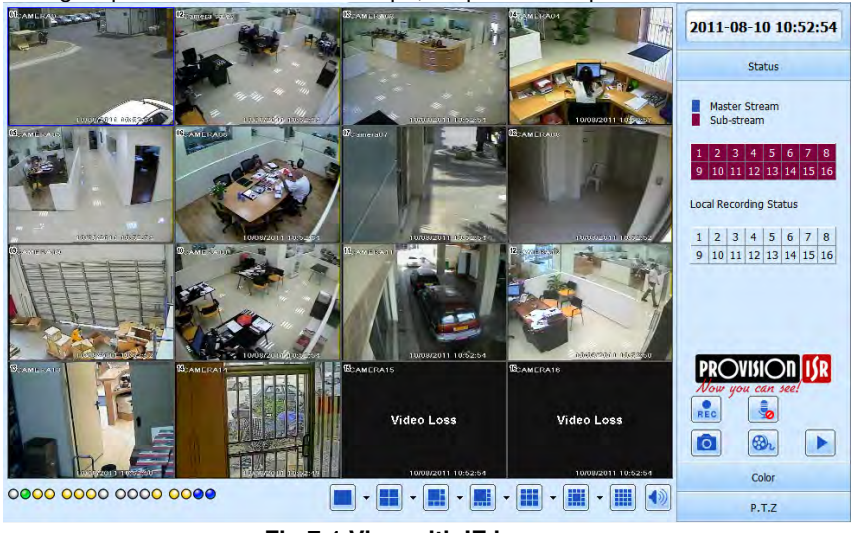


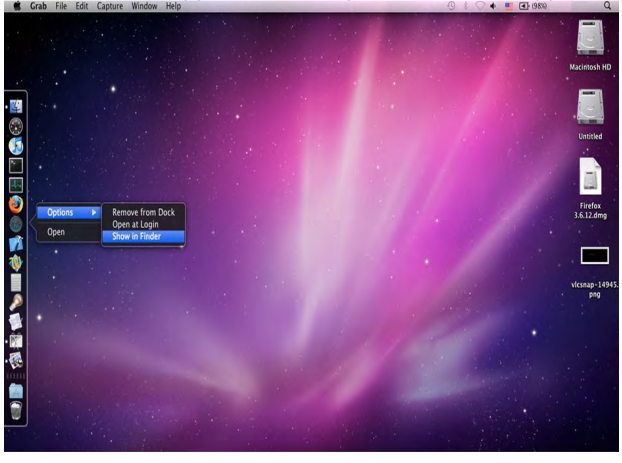
Fig 7-1 View with IE browser

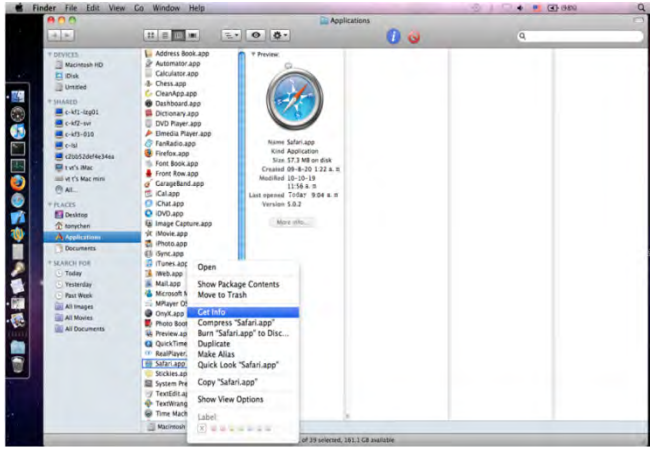
7.2 Remote Surveillance through Macintosh with Safari:

Note: Because the current plug-in version of client end just only supports 32-bit mode, so the safari browser shall start 32-bit mode. If the browser is the earlier MACOS version, the default setting is 32-bit mode and the setting can be skipped. The Setting steps are as follows:

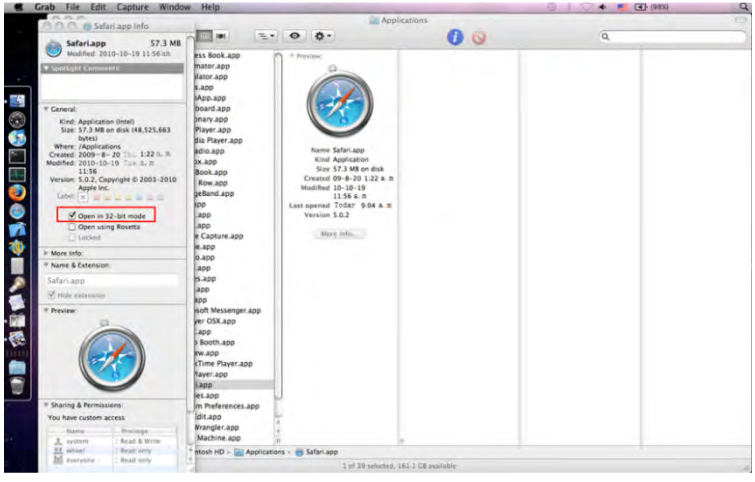
First: Right click safari icon and select “Show in Finder”.

Second: Select Applications→Right click “Safari. App”→Select “Get Info”.





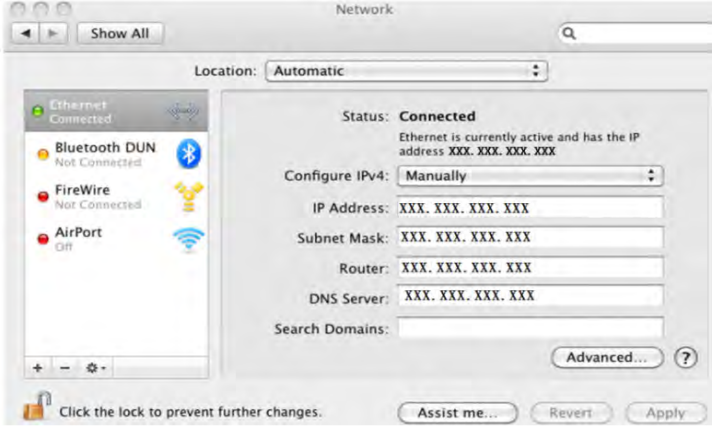
Third: Select “open in 32- bit mode”.



7.2.1 On LAN

Step 1: After starting Apple computer, click icon. The following window will pop up. Please select “System Preferences”→”Internet &Wireless”→click “Network”

Step 2: Enter into Network interface and then click “Ethernet Connected” to check the internet connection of Apple PC.



Step 3: After acquiring the IP address, Subnet Mask and so on, please enter into the DVR’s Main Menu→Setup→Network interface to manually input IP address, Subnet Mask and Gateway according to the configuration of PC. The network segment should be the same as the PC. If using DHCP, please enable DHCP in the DVR and router.

Step 4: After finishing the above information, users can enter LAN IP and http port in the Safari browser. For example: input http://192.168.1.100:81(here 192.168.1.100 is LAN IP of DVR, 81 is the http port of DVR). Click “ ↻ ”button, the browser will download Active X control as shown below:

Step 5: Click icon and then select the Active X control, the welcome interface will be shown. Click "Continue"→"Install" button，the following window will pop up：

Input the name and password of Apple PC and then click "OK" to install this Active X control.

Step 6: After finishing installing the Active X control, please quit from the Safari browser. Right click icon on the desktop and then select "Quit" button to quit the browser. Then restart Safari browser. Input the IP address and http port to enter into the login interface of DVR.

7.2.2 On WAN

There are also two ways for DVR to connect to Internet.

1. Connect the DVR to internet through router or virtual server

Step 1: The network setups are the same as step one to step four of point 1 on WAN of IE remote surveillance.

Step 2: Enter WAN IP and http port in the Safari browser to install the Active control. The concrete steps are the same as step 5 and 6 of Chapter 7.2.1.

2. Connect the DVR to internet directly.

Step 1: The network setups are the same as step one of point 2 on WAN of IE remote surveillance.

Step 2: Enter WAN IP and http port in the Safari browser to install the Active control. The concrete steps are the same as step 5 and 6 of Chapter 7.2.1.

7.3 The remote live preview interface

Fig 7-2 Remote live preview interface

Symbol and function Definitions:

①	Channel indicator	②	Screen display mode	③	Volume
④	Snapping picture	⑤	Start record	⑥	Two way audio
⑦	Start client record	⑧	Playback	⑨	Color menu
⑩	PTZ control menu	⑪	Master/sub stream /record status		

Note: click **button to record manual and the record file will be saved in user's PC.**

Screen display mode:

Click the icon beside the screen display mode, channel select dialog will appear as below:

Take 8-channel DVR for example: user can mark channels form 1-ch to 16-ch at random to display the live pictures, 8 channels can be selected at most. Then click OK button to confirm the setting.

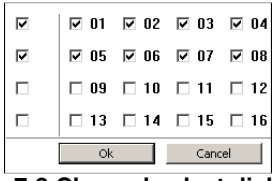


Fig 7-3 Channel select dialog

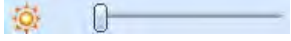
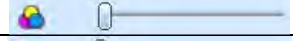
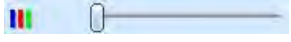
Snap pictures

Click "Snap" icon, the system will automatically capture pictures and save those pictures in the computer.

User should set up the save path for those picture in the Remote Preview interface→Configuration→Local configuration.

Color adjustment:

Drag the slide bar to adjust Brightness, Contrast, Hue, and Saturation. Click Default to reset them to original value.

Buttons	Description
	Drag the scroll bar to adjust the brightness of channel
	Drag the scroll bar to adjust the contrast of channel
	Drag the scroll bar to adjust the saturation of channel
	Drag the scroll bar to adjust the hue of channel
	Click this button to recover the default value of brightness, contrast, saturation and hue.
	Save the adjustment

PTZ control (next page)

Please connect speed dome to the device via RS485 firstly, make sure the protocol of the speed dome is supported by the device and set the relative parameters manually. User can control the dome up, down, right, left or stop rotating on Control Center, adjust rotation speed, Iris and zoom, focus on the dome, and set the presets, etc.

Buttons definition:

Buttons	Description
	means the dome rotate up. means the dome rotate up left. means the dome rotate up right means the dome rotate down. means the dome rotate left down. means the dome rotate right down. means the dome rotate left. means the dome rotate right. means the dome stop rotating.
	Drag the scroll bar to adjust rotating speed of the dome.
	'Iris' button. Click button near 'Iris' button to increase light of the dome. Click button near 'Iris' button to decrease light of the dome.
	'Zoom' button. Click button near 'Zoom' button to zoom in the locale picture of this camera. Click button near 'Zoom' button to zoom out the locale picture of this camera.
	'Focus' button. Click button near 'Focus' button to have long focus. Click button near 'Focus' button to have short focus.
	Go to the Preset
	Select and do auto cruise
	Track
	Auto scan
	Wiper button
	Light button

Click the right mouse on the live interface, a pull-down menu will appear as below

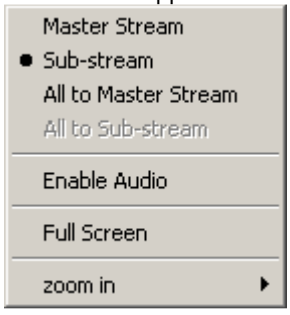


Fig 7-4 right key sub menu

Stream: this DVR supports master stream and sub stream. Master stream has higher frame rate, max 25FPS (PAL) /30 FPS (NTSC) for every channel, but it needs higher network bandwidth simultaneously; second stream has low frame rate, max 6FPS (PAL) /7FPS (NTSC) for every channel, it requires low network bandwidth. Therefore, users can select the stream according to their bandwidth.
All to master/sub stream: set all channel to master stream or sub stream.
Enable audio: enable or disenable audio
Full screen: In full screen status, the live preview picture will display with full screen and the tool bar will be hided; double click left mouse or click right mouse to return
Zoom in: Single channel large screen electronic amplification

7.4 Remote playback & backup

7.4.1 Remote playback

Click button to enter into record playback interface, refer to Fig 7-5:
Select the record date and channels and double-click the file name in the record file list box. Then user can play that file and

preview the picture.

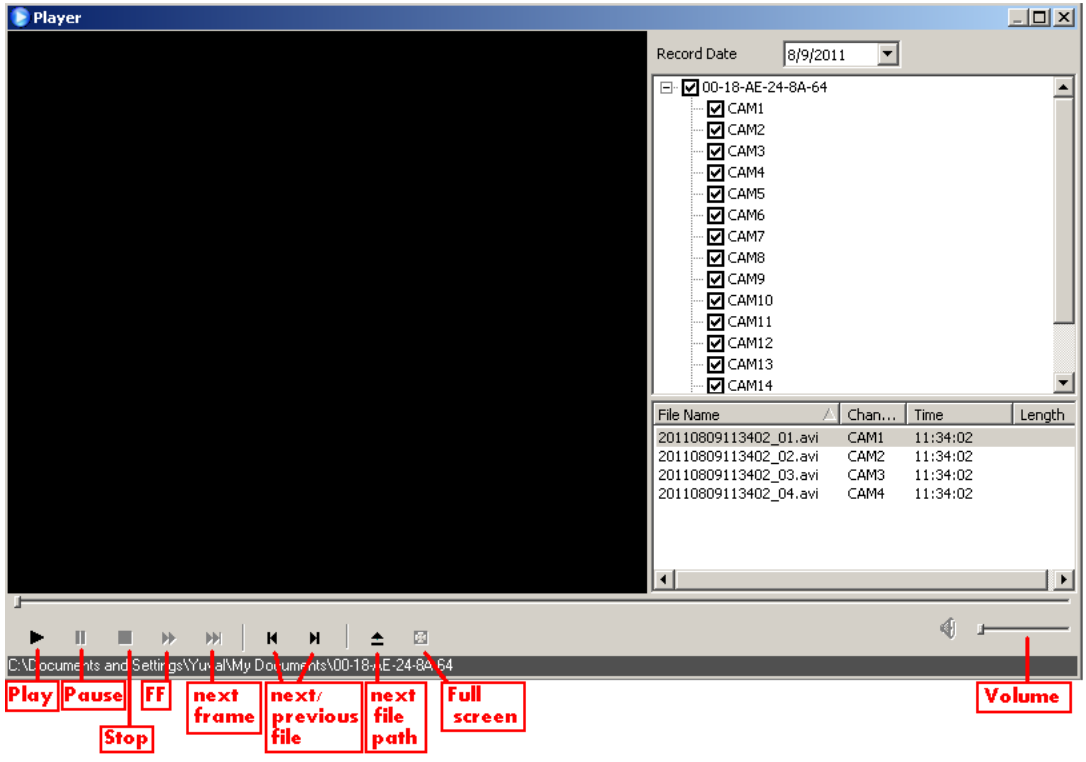


Fig 7-5 Play record file interface

This DVR supports remote time search, event search and file management.

By Time Search:

Step1: Enter into Search→time search; refer to Fig 7-6:

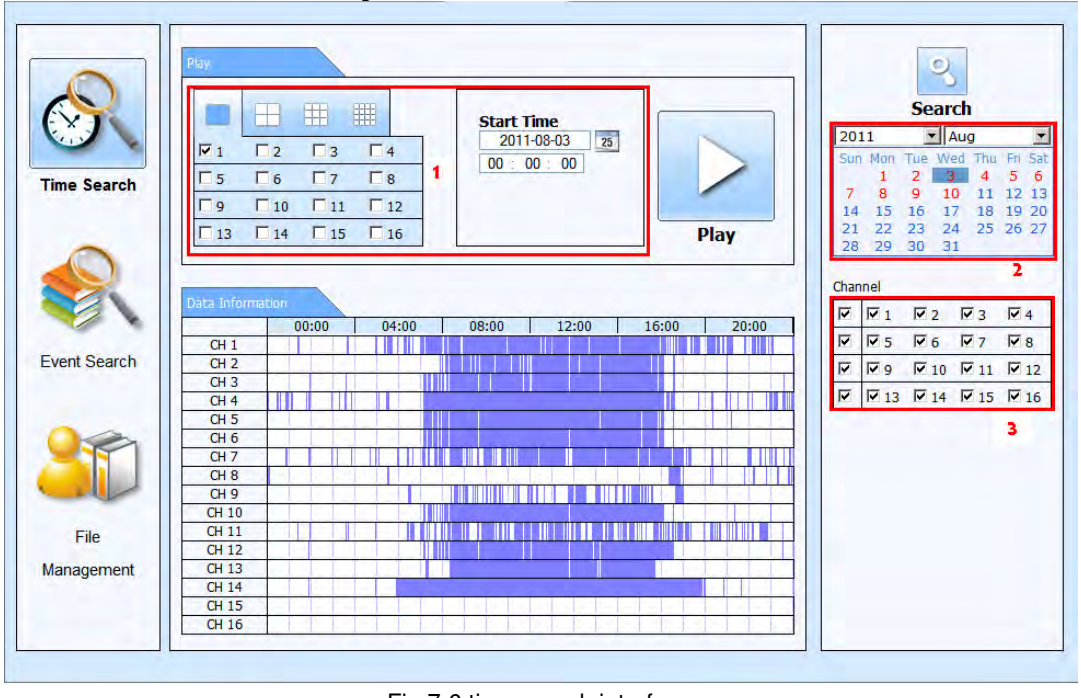


Fig 7-6 time search interface

Step2: click “Search” button. The record data will be displayed in the data information list box; the highlight date in the area② means have record data, click those data; select the record channels in area③

Step3: User can set the data playing time and display mode in the area① as required

Step4: Select certain item from the data information list box. Click “play” button to playback

Step5: Click the relevant buttons in the interface and then user can do some operations such as: FF, pause, change channel mode, research, etc. refer to Fig 7-7:

Fig 7-7 Time search playback

By Event Search:

Step1: Enter into Search→event search; refer to Fig 7-8:

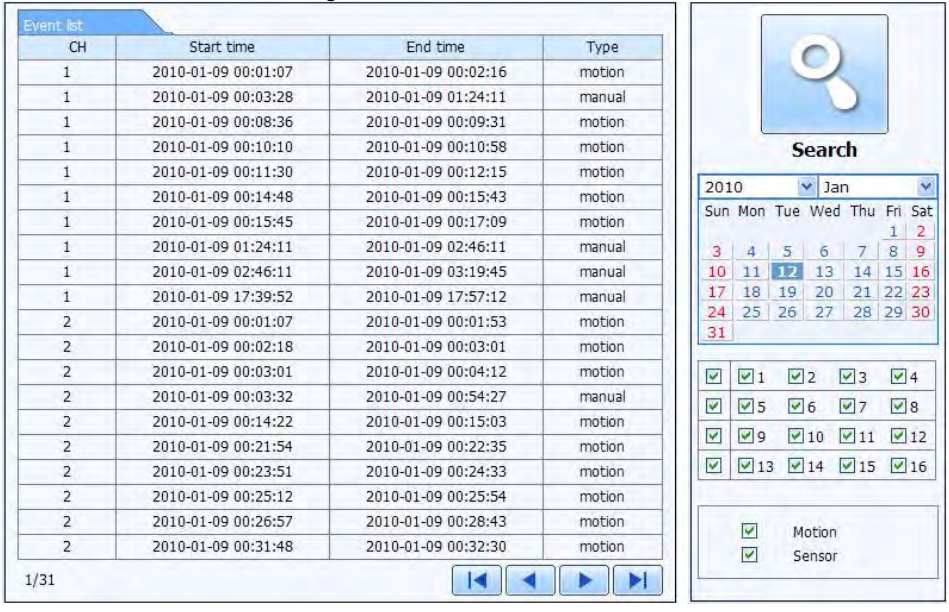


Fig 7-8 event search interface

Step2: click the highlight date and select record channels and then mark the event type: motion and sensor. Then click “search” button

Step3: the events will be display in the event list box and then double-click certain item to playback

File Management

Step1: Enter into Search→file management; refer to Fig 7-9:

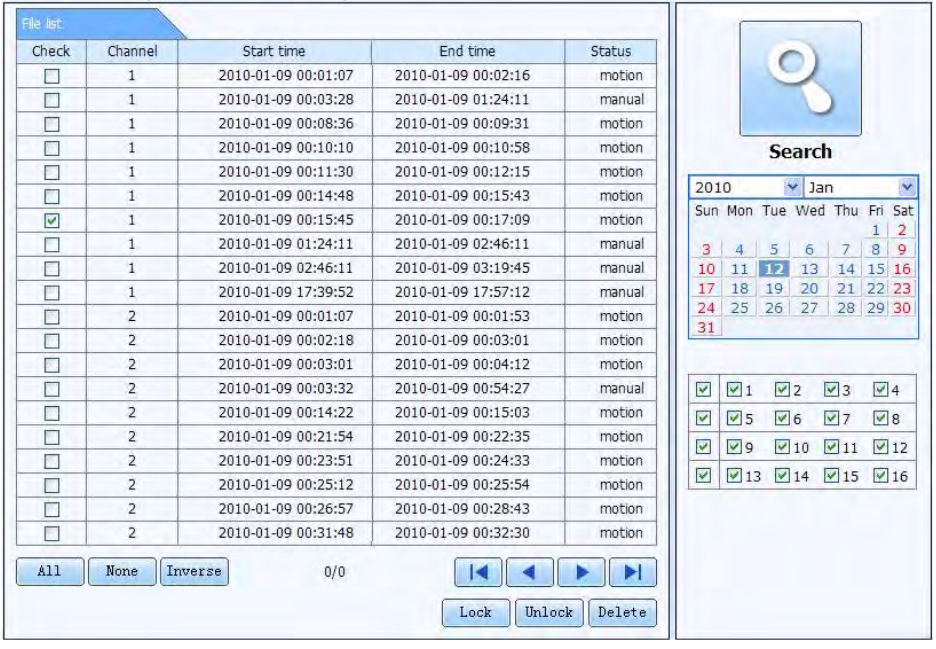


Fig 7-9 file management interface

Lock: select certain file item in the file list box and then click “Lock” button to lock this file that ca not be deleted or overlaid

Unlock: select a locked file and then click “unlock” button to unlock this file

Delete: select an unlock file and then click “delete” button to delete this file from file list

7.4.2 Remote backup

Click Backup button to enter into backup interface, refers to Fig 7-10:

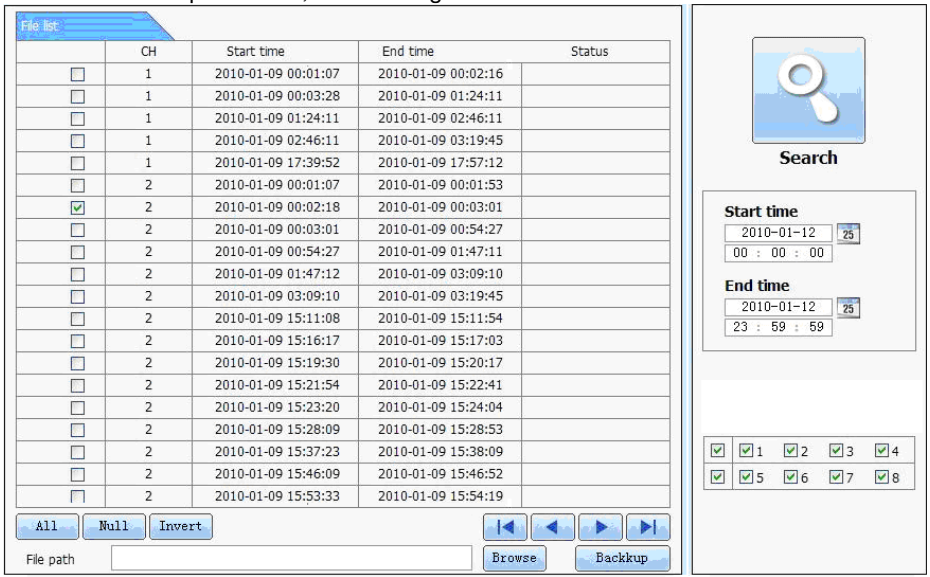


Fig 7-10 remote backup interface

Step1: select channels, set the start and end time and then click “search’ button to display the file information in the file list box

Step2: select backup files and click “browse” button to set the save path. Then click “backup” button to start backup. The backup files will be saved on user’s PC.

7.5 Remote System configuration

User can remote setup the parameters of the device. Functions of remote configurations include: basic configuration, live configuration, record configuration, schedule configuration, alarm configuration, network configuration, PTZ configuration and user configuration. User should firstly select an item in the menu list on the left, and then setup the relative parameters. When one user setup parameters of a certain item, others cannot setup this one. Click Config to enter into the below interface refer to Fig 7-11:

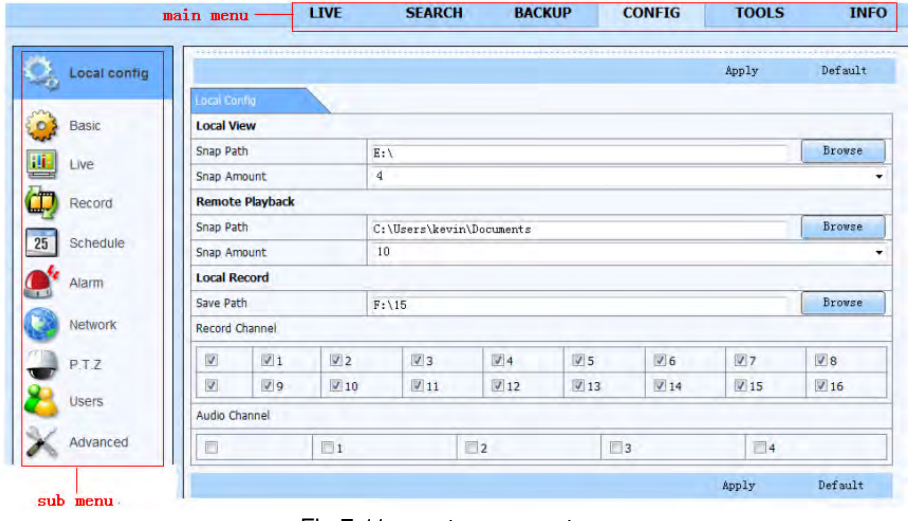


Fig 7-11 remote menu setup

The sub menu lists and the options in every item are similar with those on the DVR. Please refer to Chapter 3 Main Menu Setup Guide for more details.

Click “Apply” button to save above settings; click “default” button will recover the original settings.

7.6 Remote Management

Remote Information Search

The system will automatically record the working condition and operation process during the period of work. User can view information, such as username, IP address and so on. Enter into INFO→Log. User can set the start time to view the log record as follows:

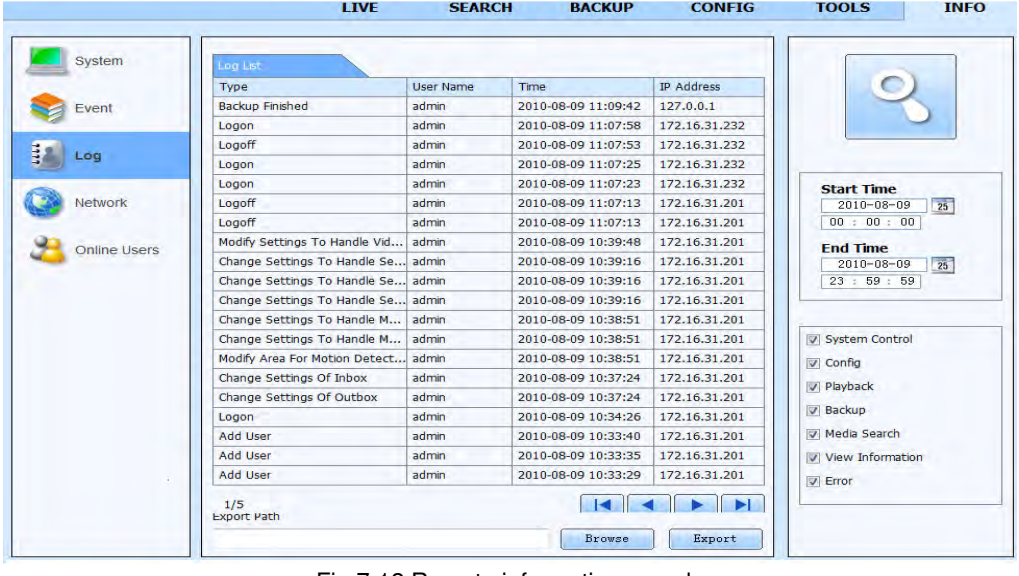


Fig 7-12 Remote information search

Note: There may be subtle differences with respect to functions of remote surveillance between through IE and through Apple PC. Here we only take IE remote access for example.

8 Mobile Surveillance

This DVR supports mobile surveillance by Iphone, Android, blackberry or smart phones with Windows mobile and Symbian OS, though the service may depend on the cellular service provider and 3G network availability and function. Dopod D600 (WM5) and Dopod S1 (WM6) was tested and work fine with the DVR.

To enable mobile surveillance, first enable network service on the DVR and router, please refer to Chapter 4.6 Network configuration. The next chapter is the instructions for mobile clients according to the phones OS.

8.1 Software installation for iPhone/iPad (SuperLivePro):

1. Install from iphone.

Open App Store in your iPhone (Fig 8.1.1).

Enable "search" function to search "SuperLivePro" (Fig 8.1.2)

Click SuperLivePro, enter into "introduce" interface and then click "FREE", it will change into "INSTALL" (Fig 8.1.3)

Input iTunes Store password and then click "OK", the software will be installed automatically.

Note: if there is no Store account, you must register.

Fig 8.1.1

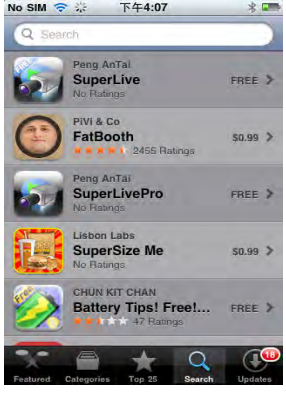


Fig 8.1.2

Fig 8.1.3

8.2 Manual for SuperLivePro 1.0

Login interface

Input server's IP address (or domain name), user name and password

Click "Remember server" to save the setting; click ▼ button user can quick input saved server address, user name and password.;

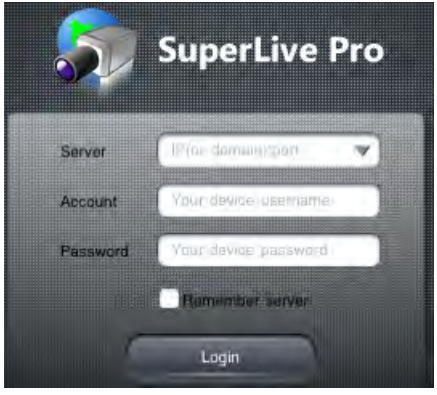


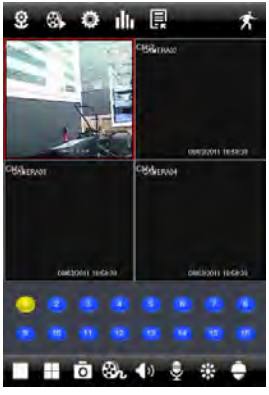
Fig 8.1.4

If failed connecting, please check below points;

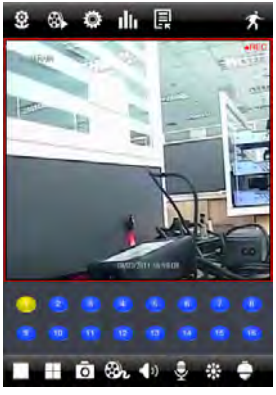
1.) Check the network connection to your iPad/iPhone.
2.) Check if the server address input is invalid.
3.) Check the username and password, please note that they are case sensitive; and make sure no spacekey entered in each line;
4.) Try changing the DVR's HTTP port and DATA port; in some countries, some ports may be blocked by carriers.

Live View Interface (Fig. 2)

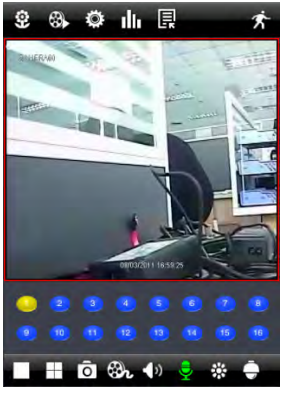
After the log in, enter the live interface, then tap the proper key for the different function. (main screen, enlarge picture, 2-way audio, color adjustment, PTZ and PTZ presets.



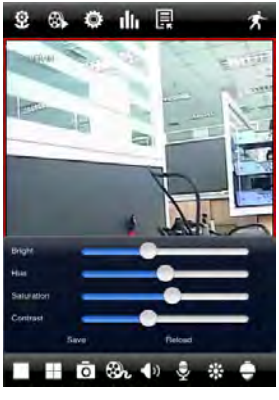
Main screen



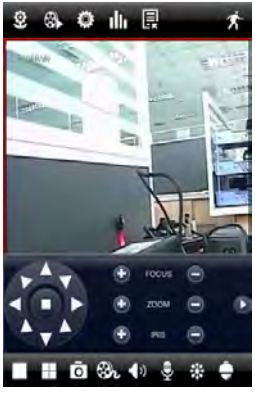
Enlarge picture



2-way audio



Color adjustment



PTZ

PTZ Presets

NavBar Icon meaning:

Quick Launch Bar Instruction:

Gestures instruction :

1.) Tap to select the current channel, double tap the live image to swtich to single channel or multi channel displaying.

2.) Press for 2+ seconds and drag to swap the position of a live channel.

3.) Tap to go back to normal mode when in full screen

Fig. 8.1.5

Snapshots interface

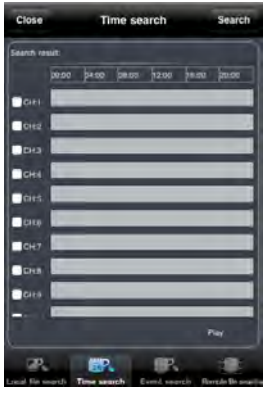
You can see the captured images in the Image interface (Fig. 8.1.7), tap the thumbnail to check the full image.

Fig. 8.1.7

Fig. 8.1.6

Using the playback interface you can playback files on the DVR, follow the next steps just like on the web or local interface:

Search menu



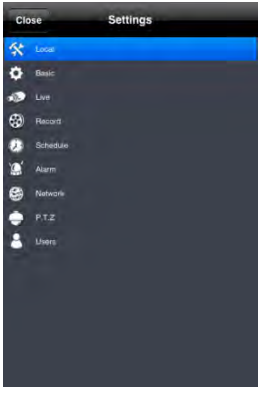
Time search

Remote file search

Event search

Local file search

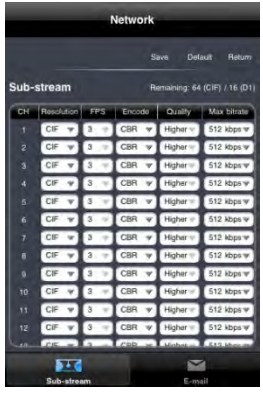
Configuration and information interface to change DVR settings:



Settings menu

Basic menu

Record menu

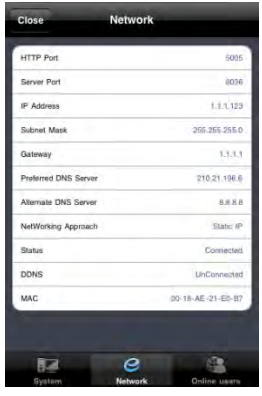


Network menu

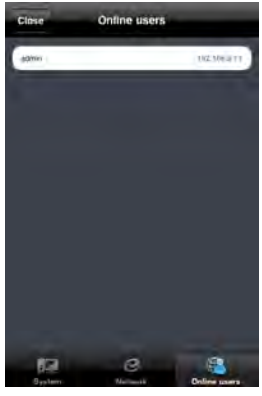
Email menu

PTZ menu

System menu



Network menu



Online users

Device list interface for quick login (figure 8.1.8-8.1.9):

Fig. 8.1.8

Fig. 8.1.9

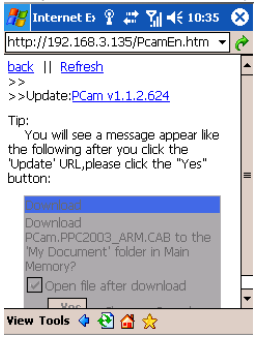
8.4 By Phones with Windows mobile

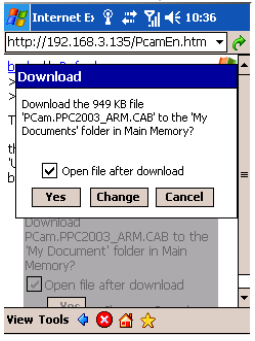
Step1 : Firstly activate the network access on mobile phone and then run “Internet Explorer”. Input the server’s address and the connection is built up shown as below picture in the left:

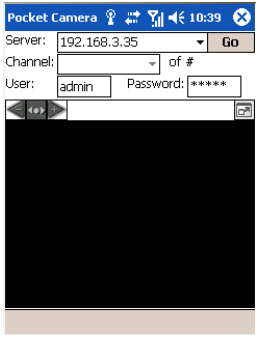
Step2 : Click on the software name. A dialog box pops up as below picture in the middle:

Step3 : Click “Yes” to start downloading and installing:

Step4 : PCam will be opened automatically after installed. Refer picture in the right:

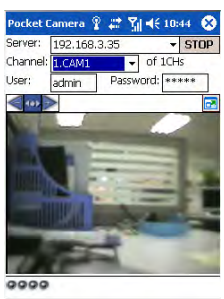

Internet Ex 10:35
http://192.168.3.135/PcamEn.htm
back || Refresh
>>
>>Update:PCam v1.1.2.624
Tip:
You will see a message appear like the following after you click the 'Update' URL,please click the "Yes" button:
Download
Download PCam.PPC2003_ARM.CAB to the 'My Document' folder in Main Memory?
Open file after download
View Tools

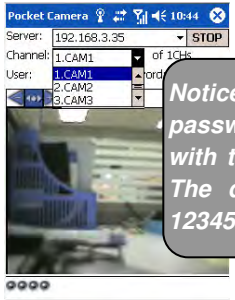




Step5 : Input the server’s address, ID and password respectively in the columns of “Server”, “User” and “Password”, and click “Go” to log on the server. It will show the picture if access successfully. Refer below picture in the left:

Step6 : Camera 1 is the default channel after login. Change the channel in rolling-down menu of “Channel”: refer below picture in the right:





Notice: User name and password here are the same with that used on the DVR. The default is admin and 123456.

8.5 By Phones with Symbian

Please use the smart phones with symbian version supported by this unit. The detail information is as follows:

Symbian S40	support
Symbian UIQ	support
Symbian S80	support
Symbian S60	support
Symbian S60 3rd Edition-Symbian OS v9.1	support
Symbian S60 3rd Edition with FP 1-Symbian OS v9.2	support
Symbian S60 3rd Edition with FP2-Symbian OS v9.3	support
Symbian S60 5th Edition-Symbian OS v9.4	support
Symbian S60 5.1 Edition-Symbian OS v9.5	support

Step1：Firstly enable the network access on mobile phone. Then run Web browser.

Step2：Input the DVR server's IP address in a new-built bookmark. Click this bookmark to connect to the DVR. Refer picture in the left:

Step3 : A welcome window will pop up and requires a package. Click the software name to download. Refer picture in the right:

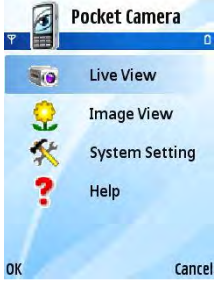
Step4 : A security windows will pop up after downloading and ask if install the package. Click YES to install.

Step5 : A Scam shortcut icon appears on the system menu after finished.

Step6 : Run Scam program. It will enter a function interface. Refer picture in the left:

Step7 : Click System setting--->Login Setting to enter login interface. Refer picture in the right:

Live view: to do mobile live view.
Image view: to check the pictures Snapped in live view.
System setting: Login setting And Alarm setting.
Help: function indication and help



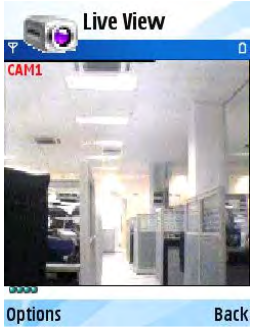
Step8 : Input the server's address, ID and password respectively. Then save.

***Notice**: About Access point, there may be different access points in different countries or from service providers.*

Step9 : Enter Live View, it will connect the server and display pictures. Refer picture in the left:

***Notice**: User name and password here are the same with that used on the DVR. The default is admin and 123456.*

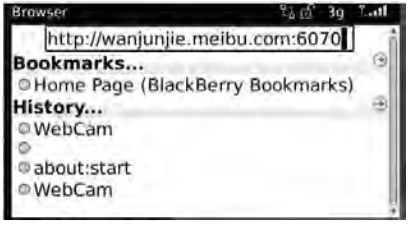
Step10 : In Live View, users can do snapshot, change channels and control PTZ. Refer picture in the right:



8.6 Installation and operation Methods for BlackBerry Mobile phone Client

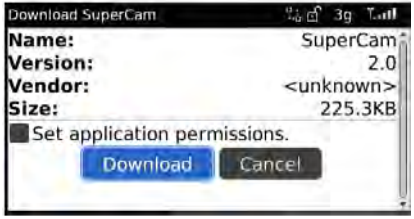
8.6.1 Installation instruction for BlackBerry Mobile phone Client

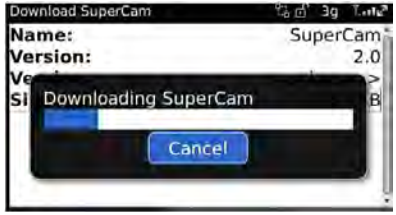
1. Open the browser of BlackBerry phone and enter sever address
2. Click “SuperCam” to link



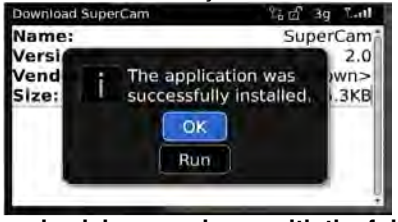
WebCam
3g
WELCOME
SuperCam for BlackBerry
NOTE:
This software is designed for BlackBerry OS above 4.5.
If you use BlackBerry storm 9500 or 9530,You will have a compatible probler
just choose Option menu->Advance options-> Application->SuperCan
SuperDVR components

3. Click “Download” button on the popup interface and the download progress will be shown.





4. Finished downloading, the software will be installed automatically.

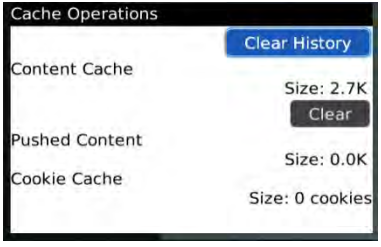


Note: If the software fails to download, please check in accordance with the following steps:

1. Check whether the network of mobile phone is normal or not
2. Check whether DVR server connect network normally or not
3. Modify the option of Browser Configuration.

(1) Enter into Menu->Option->Browser Configuration; configure referring to the following figure in the left.

(2) Enter into Menu->Option->Cache Operations, clear up browser cache. Refer below picture in the right:



Note：When user used the SuperCam software in mobile phone with touch screen, there will be compatible problem.

Solution: Enter into Options Menu->Advance options->Applications->SuperCam and click “Disable Compatibility” button. This problem will be solved.

8.6.2 Operation method for Blackberry mobile phone client

1. Login

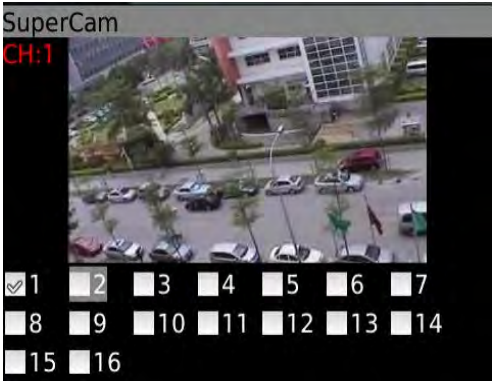
Enter server’s IP address (or domain name), user’s ID and password.

Click “Remember server” to save the setting; click ▼ button can quick input saved server address, user name and password.

2. Main interface

Playback	playback record file	**Image**	image view
Log	log record	**Server List**	device list
Information	device information view	**Help**	software help center
Logoff	logoff and return to login interface	**Settings**	software setting
Live	live view		

3. Live view



Note: User can click Return button on the Blackberry phone to return the previous interface.

Mark 1	Current viewing channel	Mark 2	Channel status
	Switch channels		PTZ, click to switch to Fig 2 interface
	Snap		Full screen
	Background alarm		Stop rotating the PTZ
	Upward rotates the PTZ		Downward rotates the PTZ
	Leftward rotates the PTZ		Rightward rotates the PTZ
	Zoom In/Focus In/Iris Add		Zoom Out/Focus Out/Iris Sub
Preset	Select the preset point	Group	Set the cruise line

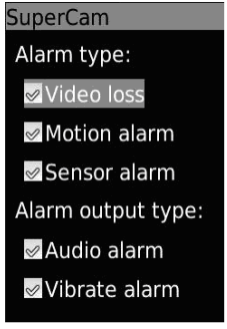
4. **Server list**

5. **Software configuration**

[Add] Add a server list

[Modify] Modify a server list

[Delete] Delete a server list



Alarm type: Setup the type of background alarm (Video Loss/Sensor/Motion)

Alarm output type: Setup prompt type of backgound Alarm (sound alarm/ bibrate alarm)

6. **Information view**

Device ID: the current connection device ID

Software version: the current connection device software version

Build date: the current connection device build date

Software version: the software version of mobile phone in use

Software build date: the software build date of mobile phone in use

Appendix A Q&A

Q1. Why can't the DVR start after connecting to the power?

a. The adapter has been damaged or is malfunctioned, change power adapter.

b. The HDD might be malfunctioning Please remove the HDD to check.

Q2. The menu is missing on the live image display

a. Right click on the attached mouse or click the "menu" button on the DVR or remote.

b. Check up whether other devices can display menu or long press ESC key to wait for login dialog box to appear.

Q3. The led power indicator is on, but the screen is black

a. The power of the adapter is malfunctioned; try removing the HDD or change the power adapter.

b. The video format of the DVR is not compatible to that of the monitor.

c. Connection problem. Please check the integrity and placements of all cables and ports of the monitor and DVR.

d. The monitor is malfunctioning, check the monitor.

Q4. Why are there missing images on some or all of the channels of the DVR?

a. Connection problem. Please check the cable and the ports of all cameras to the DVR.

b. Camera problem. Please check the cameras and their power supply.

c. The video format of the DVR is different from that of the cameras. Please change DVR system format.

Q5. Cannot find HDD

a. The power of the adapter is not supplying enough power. Change the adapter.

b. Connection problem. Check the power and data cables.

c. The HDD is damaged. Change the HDD.

Q6. Cannot record

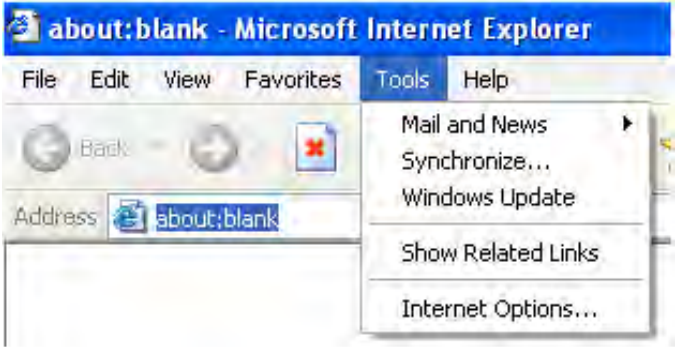
a. HDD not formatted. Format it manually to FAT32 first.
b. The record function is disabled or the setup is not correct. Please refer to Chapter 5 Record, search, playback and backup.
c. HDD is full and the recycle function is turned off. Please refer to 4.3 Record configurations. Change the HDD or enable recycle.
d. The HDD is damaged. Change to a new one.

Q7. The mouse is not working.

a. wait 1-2 minutes after mouse connected. Try pressing up/down on the remote control to activate the mouse.
b. mouse not detected. Unplug then plug again.
c. The mouse is incompatible or malfunctioned. Please change the mouse.

Q8. Cannot download ActiveX control.

a. IE browser blocks activeX. Please do setup following below.
① Open IE browser. Click Tools-----Internet Options….



② select Security------Custom Level….Refer to Fig 8-1

③ Enable all the sub options under “ActiveX controls and plug-ins” refer to Fig 8-2

④ Then click ok to finish setup.

b. Other plug-ins or anti-virus block activeX. Please uninstall or close them.

Fig8-1

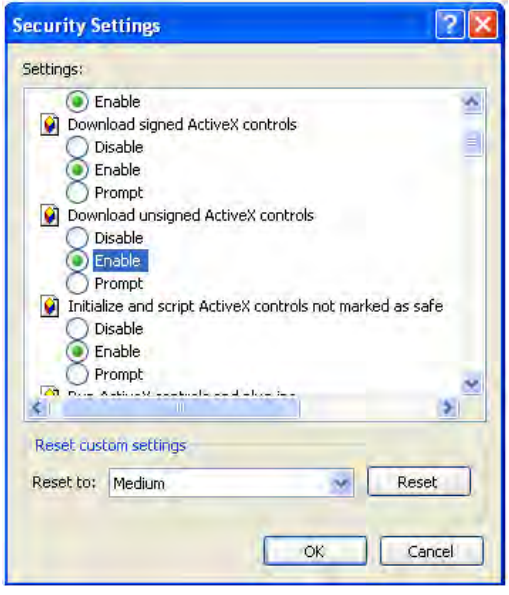


Fig8-2

Q9: when DVR starts, it displays "please wait…" all the time

First possible reason: hard-disk cable and data cable connected properly.

Solution: unplug the DVR from the power and then check the connection of the hard-disk cable and data cable and make sure they are well connected; If still not working, please unplug them and then try re-plugging again using a different cable.

The second possible reason: DVR is forced to stop because hard disk has disabled track which causes the system checking hard while the disk cannot skip. Solution: Change another new hard disk or reformat the HDD.

Q10: How to input password and digital numbers

The method to input password and digital numbers is to click the *password* box, and then a keyboard will appear. Then select a number or letter to input (the initial password is 123456). To add the password, use the digital keys in the front panel or the digital keys on the remote controller.

Q11: Why is the hard disk used in a DVR identified as a new hard disk if directly used to another same type DVR? And why must we format it again?

When DVR only uses one hard disk, the hard disk removed from one to another same type DVR can work normally without format. However, when a DVR adds to a new hard disk, it will identify the hard disk as a new one and inquire whether to format no matter whether this hard disk used or not in another same type DVR before. In this condition, it can be used normally after formatted according to the guide; if two or more hard disks used in different DVRs, when used in another DVR with the same type, they will be identified to be two or more new hard disks, and all of them need to format. In general, please do not try using disks removed from a different DVR because the data may be lost.

Q12: What are the minimum configurations of PC for clients connecting?

PC Module	Parameters
CPU	Intel Celeron 2.4G
Motherboard	Intel 845
HDD	80G
RAM	512M
VGA	NVIDIA GeForce MX440/FX5200 ATIRADEON 7500/X300
OS	Windows 2000(SP4 above) /Windows XP(SP2 above) /VISTA
DirectX	9.0

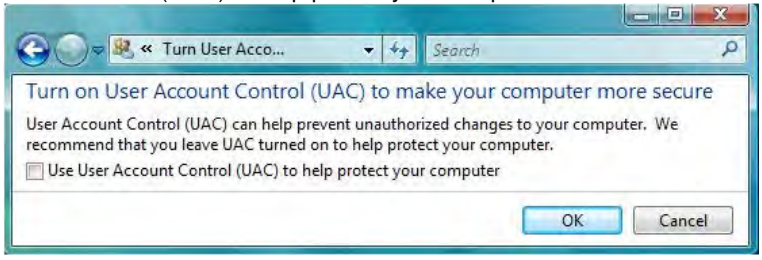
Q13: What are the PC configurations for 16-ch real time product with fully open channel mainstream?

PC Module	Parameters
CPU	Intel Core(TM)2 Duo CPU E4600
Motherboard	G31/P31 chip
HDD	80G
RAM	1GB
VGA	GMA3100/NVIDIA GeForce 8400/ ATI RADEON HD3450
OS	Windows 2000(SP4 above) /Windows XP(SP2 above) VISTA
DirectX	9.0

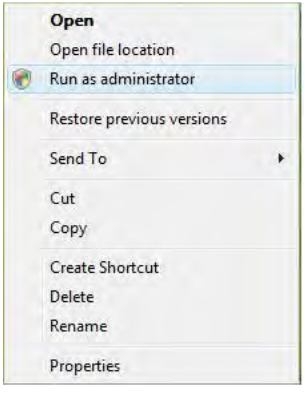
Q14: How to handle the situation when codec Control is blocked to install in the VISTA or Win7 system?

If user gets this problem, may have two ways to fix it:

a. Enter Control Panel→User Account and Family Safety → User Account Control(refer to below picture); click Turn User Account on or off. Cancel Use User Account Control (UAC) to help protect your computer.


« Turn User Acco...
Search
Turn on User Account Control (UAC) to make your computer more secure
User Account Control (UAC) can help prevent unauthorized changes to your computer. We recommend that you leave UAC turned on to help protect your computer.
Use User Account Control (UAC) to help protect your computer
OK
Cancel

b. Right click IE browser (refer to Fig 14-2), select Run as administrator to run browser.



Appendix B Calculate Recording Capacity

Users can calculate the size of hard disk according to the saving time and DVR recording settings. The DVR uses fixed video bit rate. The below are the details at different settings.

Video Format	Resolution	Frame Rate Totally(FPS)	Video Quality	Bit Rate (kbps)	Used Space(MB/h)
NTSC	CIF	30	Highest	1M	465
			Higher	768k	297
			Medium	512k	230
			Low	384k	173
			Lower	256k	115
			Lowest	128k	56
PAL	CIF	25	Highest	1M	466
			Higher	768k	295
			Medium	512k	235
			Low	384k	175
			Lower	256k	112
			Lowest	128k	56.4

The calculation format is: **Total Recording capacity =Used space per hour (MB/h) (coverage rate of hard disk) × recording time (hour) ×channel numbers**

For instance, one customer uses PAL cameras, set resolution to CIF, video quality to Lowest, frame rate to 25 fps for enabling total 16 channels. He wants the unit to record continuously in a month. Below is the calculation:

Total Recoding capacity =56.4 (mb/h) X 24(hours/day) X30(days) X16(channels)= 649728(MB)≈650(GB)

Therefore, customers just install two SATA HDDs with 320GB, it can almost record for one month.

Appendix C Compatible Devices

1. Verified & compatible USB drives (Format only to FAT32)

Brand	Capacity
SSK	512MB, 1G, 2GB
Netac	4GB
Kingston	2GB, 4GB
Aigo	2GB
Smatter vider	1GB
SanDisk	4GB

2. Verified & compatible SATA CD/DVD writers (only for backup)

Brand	Model
TECLAST	GH22NP20/TL-22XD
BENQ	DW220S-0K4
LITEON	DH—20A6S01C
LITEON	DH-20A4P02C
SAMSUNG	TS-H653B

3. Verified & compatible HDD list

Brand	Capacity
Seagate Barracuda LP ST3200542AS	2TB
Seagate Barracuda 7200.11 ST31500341AS	1.5T
Seagate SV35.3 ST31000340SV	1T
Seagate Pipeline HD.2	500G
Seagate Barracuda 7200.10	320G
Seagate Barracuda 7200.10 ST3250310AS	250G
Seagate Barracuda 7200.11 ST3160813AS	160G
Seagate Barracuda 7200.10 ST380815AS	80G
Maxtor Diamondmax 21 STM3160215AS	160G
HITACHI Deskstar HDS721616PLA380	160G
HITACHI Deskstar	80G
WD WD1600JS	160G
Samsung HD161HJ	160G

Appendix D SA-16400NE/SA-16400N Specifications

Compression format	H.264 Main Profile
Video output	Composite：1.0V p-p/75Ω BNC×2, VGAX1
Video Input	Composite：1.0V p-p/75Ω BNC×16
VGA Resolution	1280*1024 /1024*768/ 800*600
Record Resolution	352*288/704*576 (PAL), 352*240/704*480(NTSC)
Display Frame Rate	400FPS (PAL), 480FPS (NTSC)
Record Frame Rate	400/100FPS (PAL), 480/120FPS (NTSC)
Audio Input	RCA X4
Audio output	RCA X1
Alarm Input	NO or NC 16CH
Alarm output:	1CH
Record Mode	Manual / Sensor /Timer / Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES
Communication interface	RS485, USB2.0 x 2 (one for backup/USB mouse)
Disk info	SATAx1+DVD-RWx1 or SATAx2 (for SA-16400N SATAx1)
Remote controller	YES
Power Supply	12V 4A (DC)
Temperature	0℃-50℃
Humidity	10%-90%
Average Operating Power （Excluding HDD）	≤30W

Appendix E SA-8200N Specifications

Compression format	Standard H.264 Baseline
Video output	Composite：1.0V p-p/75Ω BNC×2 , VGAX1
Video input	Composite：1.0V p-p/75Ω BNC×8
VGA Resolution	1280*1024 /1024*768/ 800*600
Record Resolution	352*288/704*576 (PAL), 352*240/704*480(NTSC)
Display Frame Rate	200FPS (PAL), 240FPS (NTSC)
Record Frame Rate	200FPS (PAL), 240FPS (NTSC)
Audio input	-8dB~ 22k, RCA X4
Audio output	-8Db~92dB, RCA X1
Alarm input	NO or NC 8CH
Alarm output:	1CH
Record Mode	Manual / Sensor /Timer / Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES
Communication interface	RS485, USB2.0 x 2(one for backup, another for USB mouse)
Disk info	SATA x 1
Remote controller	YES
Power supply	12V 3A
Temperature/ Humidity	0-50℃/10%-90%
Average Operating Power（Excluding HDD）	≤30W

Appendix F SA-4100N Specifications

Compression format	Standard H.264 Baseline
Video output	Composite：1.0V p-p/75Ω BNC×2 , VGAX1
Video input	Composite：1.0V p-p/75Ω BNC×4
VGA Resolution	1280*1024 /1024*768/ 800*600
Record Resolution	352*288/704*576 (PAL), 352*240/704*480(NTSC)
Display Frame Rate	100FPS (PAL), 120FPS (NTSC)
Record Frame Rate	100FPS (PAL), 120FPS (NTSC)
Audio input	-8dB~ 22k, RCA X4
Audio output	-8Db~92dB, RCA X1
Alarm input	NO or NC 4CH
Alarm output:	1CH
Record Mode	Manual / Sensor /Timer / Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES
Communication interface	RS485, USB2.0 x 2(one for backup, another for USB mouse)
Disk info	SATA x 1
Remote controller	YES
Power supply	12V 3A
Temperature/ Humidity	0-50℃/10%-90%
Average Operating Power （Excluding HDD）	≤30W

Appendix G SA-4100HD(1U) Specifications

Compression format	H.264 Main Profile
Video output	Composite：1.0V p-p/75Ω BNC×2 , VGAX1
Video input	Composite：1.0V p-p/75Ω BNC×4
VGA Resolution	1280*1024 /1024*768/ 800*600
Record Resolution	352*288/704*576 (PAL), 352*240/704*480(NTSC)
Display Frame Rate	100FPS (PAL), 120FPS (NTSC)
Record Frame Rate	100FPS (PAL), 120FPS (NTSC)
Audio input	RCA X4
Audio output	RCA X1
Alarm input	NO or NC 4CH
Alarm output:	1CH
Record Mode	Manual / Sensor /Timer / Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES
Communication interface	RS485, USB2.0 x 2(one for backup, another for USB mouse)
Disk info	SATA x 1+DVD-RW x 1 or SATA x 2
Remote controller	YES
Power supply	12V5A
Temperature / Humidity	0℃-50℃ / 10%-90%
Average Operating Power (Excluding HDD)	≤40W

Appendix H SA-8200HD(1U) Specifications

Compression format	H.264 Main Profile
Video output	Composite：1.0V p-p/75Ω BNC×2 , VGAX1
Video input	Composite：1.0V p-p/75Ω BNC×8
VGA Resolution	1280*1024 /1024*768/ 800*600
Record Resolution	352*288/704*576 (PAL), 352*240/704*480(NTSC)
Display Frame Rate	200FPS (PAL), 240FPS (NTSC)
Record Frame Rate	200FPS (PAL), 240FPS (NTSC)
Audio input	RCA X4
Audio output	RCA X1
Alarm input	NO or NC 8CH
Alarm output:	1CH
Record Mode	Manual / Sensor /Timer / Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES
Communication interface	RS485, USB2.0 x 2(one for backup, another for USB mouse)
Disk info	SATA x 1+DVD-RW x 1 or SATA x 2
Remote controller	YES
Power supply	12V5A
Temperature / Humidity	0-50℃ / 10%-90%
Average Operating Power （Excluding HDD）	≤40W

Appendix I SA-16400HD(2U) Specifications

Compression format	H.264 Main Profile
Video output	Composite：1.0V p-p/75Ω BNC×2, VGAX1
Video Input	Composite：1.0V p-p/75Ω BNC×16
VGA Resolution	1280*1024 /1024*768/ 800*600
Record Resolution	704*576/352*288 (PAL), 704*480/352*240 (NTSC)
Display Frame Rate	400FPS (PAL), 480FPS (NTSC)
Record Frame Rate	400FPS (PAL), 480FPS (NTSC)
Audio Input	RCA X16
Audio output	RCA X1
Alarm Input	NO or NC 16CH
Alarm output:	4CH
Record Mode	Manual / Sensor /Timer / Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES
Communication interface	RS485, USB2.0 x 2(one for backup, another for USB mouse)
Disk info	SATA x 4+DVD-RW x 1 or SATA x 3
Remote controller	YES
Power Supply	110V-220V
Temperature / Humidity	0℃-50℃ / 10%-90%
Average Operating Power （Excluding HDD）	≤40W

Appendix K SA-32800 Specifications

Compression format	Standard H.264 Baseline
Video output	Composite：1.0V p-p/75Ω BNC×2, VGAX1
Video Input	Composite：1.0V p-p/75Ω BNC×32
VGA Resolution	1280*1024 /1024*768/ 800*600
Record Resolution	352*288/704*576 (PAL), 352*240/704*480(NTSC)
Display Frame Rate	800FPS (PAL), 960FPS (NTSC)
Record Frame Rate	800FPS (PAL), 960FPS (NTSC)
Audio Input	RCA X16
Audio output	RCA X1
Alarm Input	NO or NC 16CH
Alarm output:	4CH
Record Mode	Manual / Sensor /Timer / Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES (RS485)
Communication interface	RS485 x 2; USB2.0 x 2(one for backup, another for USB mouse)
Disk info	SATA x 3+DVD-RW x 1 or SATA x 4 (SATA x8 optional)
Remote controller	YES
Power Supply	AC 220V or 110V
Temperature / Humidity	0℃-50℃ / 10%-90%
Average Operating Power （Excluding HDD）	≤50W